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#### WEEKLY REPORTS

Of the Offices of

WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol XXII.

January 6-27, 1923.

Nos. 1, 2, 3 and 4

#### Western Irrigation Agriculture

#### Scottsbluff.

The average maximum temperature for the week ending January 13 was 50 with a maximum of 59 on the 11th; the average minimum was 23 with a minimum of 12 on the 13th. It has been dry and windy with an average daily wind movement of 345 miles or 14.4 miles per hour. The routine work of caring for the stock has been carried on together with enlarging and improving the dairy barn. The lambs in the feeding experiments are now on full feed and doing well, the weather being ideal for feeding. Some of the feeders on the north side of the river have been forced to ship their lambs on account of some form of an epidemic that afflicts the flocks, death resulting in a few hours.

The average maximum temperature for the week ending January 20 was 49 with a maximum of 60 on the 18th; the average minimum was 19 with a minimum of 14 on the 16th. The work of the station force has been the usual routine of caring for the stock, making some improvements in the dairy barn and manuring some of the pasture plats. No further losses have been reported among the lambs on feed on the project.

James A. Holden.

#### Umatilla

For the month of December Mr. Dean reports as follows on conditions on the Umatilla project:

Weather during the forepart of December was cold and stormy but a Chinook on December 24 cleared the ground and the weather was warm during the balance of the month. The maximum temperature was 62, the minimum 10 and the precipitation 1.43 inches.

Farmers have been losing some hogs all fall but the veterinarians were unable to determine the cause. Through the efforts of the farm, Dr. Sims, Veterinarian of the Oregon Experiment Station, was secured on

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## Umatilla (Continuea)

December 11 and he pronounced the disease cholera although "hog Flu" was probably present earlier. This was the first cholera on the project since 1914. Some time was spent with the veterinarians, vaccinating about 500 head. The losses include a total loss of the Adams' herd of 40 head of purebred Durocs, which has been winning regularly at the State and other Fairs, 20 sows and 250 pigs from the Strchm herds and 4 or 5 head from other herds. So far as is known the disease is not occurring in any new herds. It is thought that cholera was introduced by the Adams herd which went to the State Fair and spread by the same herd at the local Hog and Dairy show later.

The carload of lambs which was purchased in October was put on feed on December 1. The result so far follows:

| Weights | and | Gain | December | 1 | to | January | 3,• |
|---------|-----|------|----------|---|----|---------|-----|
|---------|-----|------|----------|---|----|---------|-----|

| Lots | i | Feed   |   | Weights |   | Weight | s   |       | Gains    |            |
|------|---|--------|---|---------|---|--------|-----|-------|----------|------------|
|      |   |        |   | Average |   | Jan.   | :   | Total | Perhead  | Perhead    |
|      |   |        |   | initial |   | 3      | . : |       | per peri | od per day |
|      | : |        | : |         | : |        | :   | :     |          | •          |
| 1    | : | corn   | : | 2618    | : | 3230   | :   | 612 : | 12.25    | : .371     |
| 2    | : | wheat  | ; | 2573    | : | 3160   | ;   | 587 : | 11.70    | : .355     |
| 3    | : | oats   | : | 2605    | : | 3160   | :   | 555 : | 11.10    | : .336     |
| 4    | : | barley | : | 2445    | : | 3000   | ;   | 555 : | 11.10    | : .336     |
| 5    | : | barley | : | 610     | ; | 780    |     | 170 : | 11.33    | : .344     |

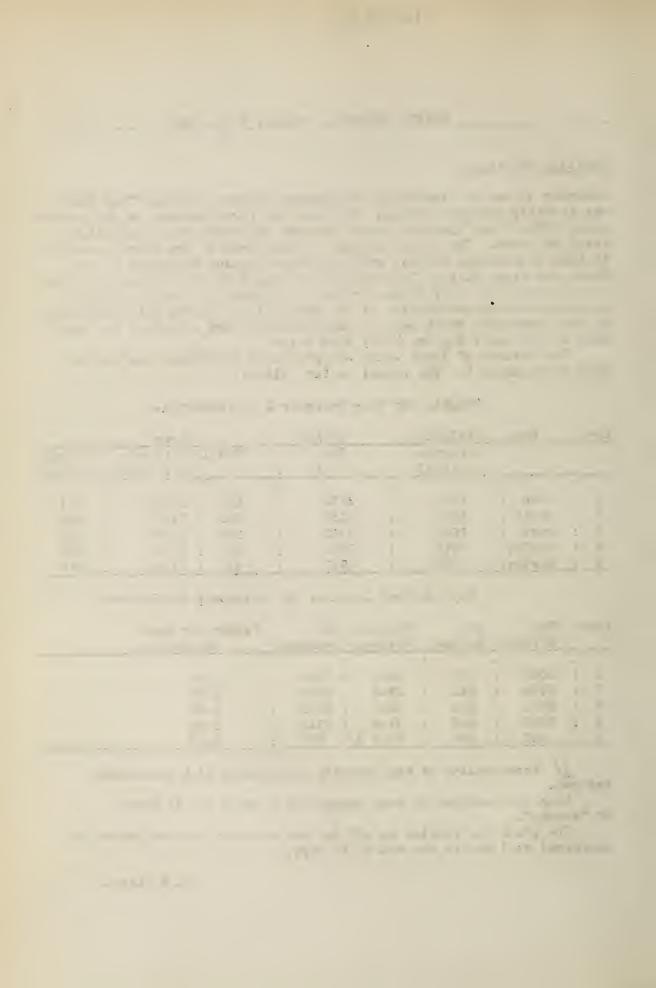
Hay consumed December 12 to January 8 .-- 27 days.

| Lot | s | Hay<br>Offere |   | Hay<br>Refus |       | Percen<br>Refuse |    | Hay<br>Consumea | Pounds pe | •          |
|-----|---|---------------|---|--------------|-------|------------------|----|-----------------|-----------|------------|
|     | : |               | : |              | ;     |                  |    |                 |           | ,          |
| 1   | : | 3080          | : | 570          | :     | 18.5             |    | 2510 :          | . 1.      | 86         |
| 2   | : | 2905          | : | 510          | :     | 17.6             |    | 2395            |           | 7 <b>7</b> |
| 3   | : | 2940          | : | 455          | :     | 15.5             |    |                 |           | 84         |
| 4   | : | 2570          | : | 460          | :     | 17.9             |    | 2110            |           | 92         |
|     |   | 820           |   |              |       | 40.3             |    |                 | 1.        |            |
| 5   | : | 820           | : | 330          | -, \$ | 40.3             | 1/ | 490             | 1.        | 21         |

<sup>1/</sup> Poor quality of hay probably accounts for high percentage refused.

Each lot contains 50 head except lot 5 which has 15 head . . of "acrubs".

The grain was started at .25 lb. per head per day and gradually increased to 1 lb. at the end of 15 days.



## Demonstrations on Reclamation Projects.

#### <u>Minidoka</u>

The principal business of the week ending December 30, has been the preparation of the annual report and calls on poultrymen. Matters of interest in poultry are feeding, culling and general flock management. The increased interest in poultry brings to the agriculturist a great many inquiries on flock management and calls to visit flocks, irspect the methods of handling, and give suggestions. These demands are varied, no diseases reported, nothing out of the usual or extraordinary but a demand for knowledge of better poultry methods.

The first part of the week ending January 6 was devoted to finishing the annual report and the latter part to collecting information on farm success of project settlers. Interviews indicate that no matter how apparently prosperous farmers are, they seriously lack working capital and a great many of them sufficient money to pay their taxes. A general summary of the men visited could be made in one word, "broke". About one-half on the men are hopeful of being finally able to win out. The others are very much discouraged.

J. T. Montgomery.

#### Newlands.

During the week ending January 6 some time was spent on the preparation of two newspaper articles for local papers. One article of 800 words was prepared on the subject of "More Corn and Hog Farmers on the Newlands Project". A second article of 1200 words was prepared on the subject of "Dairy Development on the Newlands Project in 1922". These articles are the beginning of a series of articles planned by this office to be published during the year in the local papers, for the purpose of stimulating interest in live stock farming, in order that the bad effects of an alfalfa weevil quarantine may be offset.

The cooperative shipment of hogs planned for the week was sent out and a very satisfactory sale was made. The date for the next shipment of hogs is set for the first week in February.

L. E. Cline.

## North Platte.

During the week ending December 30 some time was spent lining up prospective communities where pig clubs may be organized. Five different

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## North Platte. (Continued)

communities are especially interested and have competent local leaders. Other communities will be visited as soon as possible. County agents in the three counties included in the project are cooperating and a special effort will be made in club work next year.

During the week inquiry was received from Mr. Morse, county agent of Goshen county, Wyoming, for grade Holstein and Jersey cows for farmers in his county. Butter fat is selling above 50 cents and good cows well taken care of are returning a good profit. There will be a few sales in the Valley in February where some very good grade Holsteins will be offered. Farmers who want cows are watching the dates with considerable interest.

Two cases of sickness among hogs were reported during the week ending January 6. Examination showed symptoms of cholera and both herds were vaccinated. Roup was found in a flock of 400 Brown Leghorn hens. A dozen or so badly affected hens were killed and treatment was prescribed for the slightly affected birds. Roosting quarters were better ventilated and sanitary measures outlined.

Some time this week was spent interviewing individual farmers in different parts of the project as to methods employed on their units and results obtained since they have had possession. Conferences were also had with local Reclamation officials and the annual meeting of the North Platte Valley Water Users Association was attended at Scottsbluff on the 2nd.

D. H. Propps.

#### Shoshone.

During the week ending December 30, 7 farm visits were made and 24 requests for assistance received.

Excepting the time required by the members of the Garland Division Water Users Board and some miscellaneous live stock work, the week was given to the assistance of farmers in completing records, summarizing such records, and in preparing an annual report. A meeting of the Agricultural Committee of the Powell Commercial Club was attended—a meeting at which a few possible ways of helping the live stock industries were discussed. Seventeen milk samples were tested.

During the week ending January 6, 1923, 12 farm visits were made and 37 requests for assistance received

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## Shoshone. (Continued).

Two days were used in completing the annual report for 1922 and the remainder of the week was used attending to requests for information and assistance relative to a variety of subjects. Considerable attention was given to crop rotations and the farm practices in use, these being discussed with 10 farmers.

A meeting of the Park County Farm Bureau Executive Committee was attended at Cody, Wyoming. The question of employing an expert county salesman was the chief one considered by this meeting. In the end a committee was appointed to prepare a plan for raising money to defray the expenses of employing such a salesman with instructions to report January 16. It is the present view that a salesman should be paid a stated salary and that all commissions charged shall be under the control of a marketing committee.

G. A. Wright.

#### Uncompangre.

The week ending January 6, with the exception of  $l\frac{1}{2}$  days in the office, has been given entirely to poultry culling and cow testing. Although this is not considered a favorable time to cull hens, the work has been done for six men who found it necessary to reduce their flocks. A large part of the birds culled consisted of late hatched pullets which are not believed to be profitable to keep. Feeding was emphasized as it has been observed that the majority of poultry raisers are weak in this regard.

Twelve small herds of cows were tested for butterfat. Five of these are herds in which no records have ever been kept.

Another Jersey bull was received from Grand Junction this week on the free-lease plan of the Mesa County Jersey Club for two farmers who will use him jointly, and another farmer has sent in his request for one of these bulls. Arrangements were also made for the purchase of a registered Duroc-Jersey sow from the herd of Clements & Clements of Paonia,

Clements of Paonia,

H. A. Ireland.



#### WEEKLY REPORTS

#### Of the Offices of

# . WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol XXII. February 3, 1923. No. 5

## Western Irrigation Agriculture

#### San Antonic

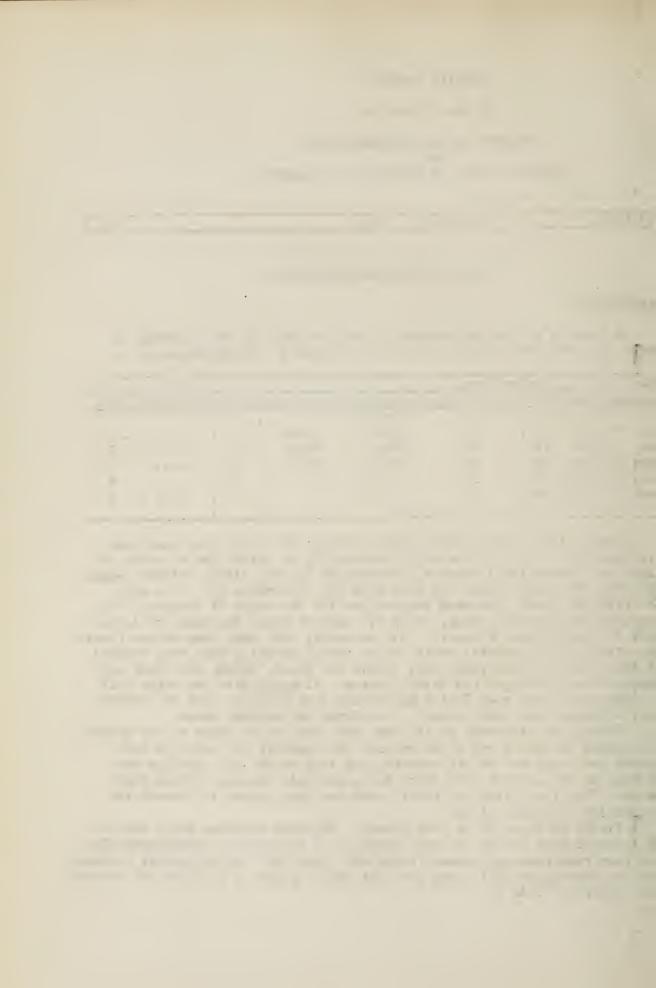
A summary of the meteorological data recorded at the station, by weeks, for the five weeks period ending February 3 is given below:

| Week    | :   |      |     | Ten  | pei | rature  |        |       |     |          |      |     |     |        | ~~~ |        |
|---------|-----|------|-----|------|-----|---------|--------|-------|-----|----------|------|-----|-----|--------|-----|--------|
| Ending  | : M | ax . | : 1 | lin. | : G | r.Daily | Range: | moun  | t:N | o-of oay | ys:C | lea | r:P | .Cloud | y:( | Cloudy |
|         | :   |      | *   |      | :   |         | :      | Inche | s:  |          | i    |     | :   |        | :   |        |
| Jan. 6  | ;   | 76   | ٠   | 28   | :   | 42      | : 1    | Vone  | :   | None     | *    | 7   | :   |        | :   | ****   |
| Jan- 13 | 3:  | 87   | :   | 31   | : _ | 43      | :1     | lone  | 2   | None     | :    | 5   | :.  |        | :   | 2      |
| Jan. 20 | );  | \$3  | :   | 34   |     | 39      | : 1    | Vone  | :   | None     | :    | 6   | :   |        |     | 1      |
| Jan. 27 | 7:  | 79   | :   | 33   |     | 33      | :      | -37   | :   | 6        | :    | 2   | :   | 1      |     | 4      |
| Feb. 3  | :   | 85   | :   | 28   | :   | 30      | 1      | .53   | :   | 5        | ;    | 1   | ;   | ****   | :   | 6      |
|         | :   |      | :_  |      | :   |         |        |       | :   |          | :    |     | :   |        | :   |        |

The minter drought, which began November 17, 1922, continued with practically no interruption until January 21, at which time a series of light and intermittent showers, accompanied by much cloudy weather, began. Although the temperatures for each week show a minimum below, or near, the freezing point, the mean temperature for the month of January, 59.9 degrees, was unusually high, being 7.5 degrees above the mean for January over the preceding 16 years. This unusually high mean temperature forced many fruit and commental trees, which should normally have been dormant at that season of the year, into growth and bloom, making them much more susceptible to damage from later freezes. Although cats and other fall planted crops made very little growth and were badly in need of moisture they retained good color except in is clated and extreme cases.

During the five-week period the waste area on A3 south of the orchard was graded in such a way as to relieve the tendency for water to back across the lower end of the orchard, and thus reduce to a minimum the washing of the orchard soil which has previously occurred during heavy rains. The ditch along the public road was also graded to prevent the stagnation of flood waters.

Fields AB 8 and D4 E4 were plowed. Thirteen rotation plats and all of field D3 were disked for weed control. A terrace was constructed along the farm road running between fields ABC 5 and ABC 6 in an attempt to check serious washing of soil along the east end of plats on field B6 and through the center of field C6.



## San Antonio (Continued)

Other work done at the station during the period included removing dead trees from orchards and making new orchard plantings; pruning orchard Al; building up the borders on rotation and tillage plats A4-7 to 10 to prevent run-off of rainfall; trimming the ends of all plats of fall planted crops; repairing water and sewerage systems; and repairing and painting farm machinery.

Mr. J. K. Thompson, Deputy Inspector, Texas State Department of Agriculture, visited the station on January 25 for the purpose of examining our citrus trees prior to certifying to their freedom from canker

or other transmittable infections.

Geo. T. Ratliffe.

#### Scottsblufff .

The weather during the week ending February 3 was considerably colder although there have been no storms in the Valley. The average maximum temperature for the week was 37 with a maximum of 49 on the 29th; the average minimum temperature was 5 with a minimum of 7 below zero on the night of the 2nd. The average maximum for the month of January was 45 with a maximum of 60 on the 18th; the average minimum was 18 with a minimum of 1 on the 30th.

The work at the station has been the routine work of caring for the stock. The continued mild weather has been ideal for stock feeding and the lambs are beginning to go to market. The price so far is only giving fair returns to those who bought lambs early that cost 10 cents or less.

The Great Western Sugar Company is sending it field men out with contracts carrying a minimum of \$5.50 per ton. The Bankers' Association has protested against this saying that the cost of production will exceed this. All the Commercial and Civic bodies in the Valley have joined in this protect. The Beet Growers Association has refused to consider it. The Sugar Company has announced that this is their final decision.

The potato market shows no change. No 1 Triumphs are quoted at 70 cents and No. 2 at 45 and 50, but there are very few sales.

James A. Holden.

## August Total St.

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#### Demonstrations on Reclamation Projects

#### Belle Fourche

Most of the week ending February 3 was cold with an extremely cold and stormy period the latter part of the week. One community meeting was postponed.

On Saturday, six pig club boys gathered at the farm of C. J, Kendall where 5 registered gilts were purchased for \$60 per head. These gilts will farrow in March. It is expected that six more boys will join the club and select their own gilts. Only the best of Mr. Kendall's herd were offered for sale to the boys, and considering the very high type and excellent blood lines, the gilts were well worth the consideration paid.

Twelve carloads of hogs were shipped from Newell in January, nearly all of which were feeders.

A mixed car of common and Grimm alfalfa and sweet clover seed left the Newell yards Saturday. Due to an unusually wet growing season much of the seed was discolored and shrunken. There is still a quantity to be threshed when the weather permits. Test year the project had 23 inches of rainfall against a normal of 14 inches. Of this amount 18 inches came during the growing season.

F. E. Miller.

#### Minidoka

The most interesting matters of the week ending February 3 were locating and securing options on some Tersey bulls of good breeding and record for use on some project herds. A demend for three or four good bulls has grown out of the cheese factory agitetion and two of these have been located. Farmers seem a bit hositant about signing contracts to deliver their milk to the cheese factory for any length of time. They seemingly want to hold themselves free to sold their cream to the cream stations in case of a price war. Some hesitate to undertake to deliver milk to the cheese factory as per cheese factory requirements. At present the cheese factory price would be about fifteen cents per pound for butter fat over local cream stations.

Interest in poultry is still maintained at a healthy pitch. Farmers on the project will plant more sugar beets and less potatoes for next year. A large majority are signing beet contracts for small acreages.



### Belle Fourche (Continued)

The number of foreclosures and Sheriff's sales continues. The recent failure of two banks puts Rupert and Paul communities in very serious financial straits. If holders of notes and mortgages insist on payment, farmers will be forced off their holdings.

J. T. Montgomery.

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#### North Platte

During the week ending February 3 two trips were made to Goshen County, Wyoming, at the request of County Agent Morse. Messrs. Willie and Sheldon, in charge of vocational education at Torrington and Lingle, are also cooperating in a satisfactory manner. Dairy farm demonstrations and boys' and girls' club work in Goshen county will be handled in cooperation with these men.

The stock-holders of the Fort Laramie Cheese Factory are making an effort to reopen the factory which has been closed since last September. A meeting of the stockholders and those interested was attended the first of the week. There are about 135 foots in the territory adjacent to the factory and it is proposed to operate at least during the spring and summer months. An attempt will be made to sell \$1850.00 worth of additional stock which will bring the total up to \$5,000.00.

During January, Mr. Willie, in charge of vocational education in the Torrington schools, conducted a four-weeks' extension school at Veteran and Huntley, Wyoming. The course was intended especially for the ex-service men who are occupying units in those communities. At the request of Mr. Willie, these points were visited with him Thursday afternoon and evening and an illustrated lecture on livestock given at each place.

Four or five farmers north of Morrill, who have been considering an agreement with the experiment farm for the use of a Holstein buil, were interviewed during the week. It is quite likely that arrangements will be completed immediately and the bull put in service in that community. The bull will be used on about 50 coss.

Mr. L. E. Cline of the Newlands project was a visitor at the farm on Saturday.

D. H. Propps.



#### Uncompangre

All but Friday and Saturday of the week ending February 3 was spent on annual leave, the last of the week being spent at Manhattan, Kansas, visiting the Agricultural College and State Experiment Station. A meeting of the experiment station staff was attended at which an experiment conducted cooperatively by the divisions of agronomy, chemistry and animal husbandry to determine the effect upon the stand and yield of alfalfa of cutting more or less frequently, the analysis of the hay of various stages of maturity and the comparative results obtained from feeding such hay to cattle, was reported. In the experiment which extended over a period of three years, alfalfa was cut at four different stages, vis., when in bud, when 1/10 in bloom, when in full bloom and when seed was beginning to form. It was found that the more frequent cutting (first two stages) under the local conditions resulted in a marked decrease in the stand of alfalfa and the yield of the hay. Chemical analyses and digestion experiments showed the hay from the less mature alfalfa to possess higher feeding value which was substantiated in a rather remarkably consistent way by feeding experiments.

H. A. Ireland.

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#### WEEKLY REPORTS

Of the Offices of

#### WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

February 10, 1923.

No. 6

## Western Irrigation Agriculture

#### Newlands

The report for the period January 1 to February 10, 1923 follows:The lowest temperature so far recorded this winter was 0 degrees,
occurring on January 31, February 2 and 3. The mean temperature for
January was 4 degrees higher than the average for 17 years.

The second carload of alum has been hauled to the station and the work of spreading this on various plats is being carried out. Y-1 is receiving another application at the rate of 26 tons of ore per acre. It will be remembered that the application on Y-1 last spring was much lighter than was originally planned. This was due to a shortage of alum ore and also to the fact that the ore mined proved to contain a smaller percentage of alum than the first sample.

All plats on Y with the exception of No. 1 show a fair standoof alfalfa although some checks are rather spotted. The location of the non-productive spots was determined quite accurately last summer while oats were growing in the field. During the coming month it is planned to treat them with a heavier application of alum than is put on the more fertile lands. In the spring all bare spots on Y will again be seeded to alfalfa. The present objective is to obtain if possible, a stand of alfalfa from Y-1 to Y-12, inclusive, practically free from spotted areas. If such can be done with this tract of land, it is fairly safe to predict that alum may be successfully used to reclaim much of the alkali land on the project.

An experiment is being tried on B-7, 8 and 9 in an attempt to show the relative value of manure and alum applied to a cement soil. This soil is entirely different in type from adobe soil. The chief trouble here is one of cementing. Upon drying the soil cements with such a crust that it is impossible for plants to force their way through the surface in any other place than the cracks in the soil. Corn has often been planted in this type of soil and it has been found that by the time the ground had dried sufficiently to bear the weight of a team, the cultivator blades were unable to penetrate the surface. In this experiment alum ore at the rate of 24 tons per acre was applied to the west three-fourth of B-7; manure at 16 tons and alum at 16 tons per acre on the west three-fourth of B-8; and manure at 24 tons per acre on the west three-fourth of B-9. In this way the east one-quarter of each plat is left as a check.

The pasture was given a dressing of manure at the rate of 16 tons per acre. To each load of manure 150 pounds of alum ore was added, or, in other words, an application of 2,400 pounds per acre. The orchard has been manured and as soon as the ground has thawed sufficiently it will be disked.

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## Newlands (continued)

Several odd jobs about the farm have been completed such as the repairing of the irrigation ditch at the rear of the office buildings, clearing ditches of weeds, the removal of several cottonwood trees and such jobs as can well be accomplished during cold weather.

A new Arcola heater has been installed in the laboratory. This arrangement has proven in every way a success. It is more economical than the previous coal burner stove and the heat through the laboratory is more uniform. It is also possible with this heater to keep a small fire overnight and avoid the previous trouble of frozen liquids and broken bottles. In fact it is a real pleasure to work in a laboratory now that was heretofore made uncomfortable in the greater part of the forence noon by the accumulated cold of the previous night.

Analysis of the alum used on plats B-7 and 8 and on Y-1 showed the following percentage of crystallized salt;

B-7 and 8 ..... 10.0 per cent Y-1 ..... 8.3 per cent

E. W. Knight.

#### Demonstrations on Reclamation Projects

#### Minid oka

Fifty-six office calls were received and 11 farm visits were made during the week ending February 10.

Interest in poultry matters is still maintained. There was a very good monthly meeting of the Burley Club, Saturday, the principal discussion being on matters of incubation, lead by Mr. A. R. Denman, Smith-Hughes teacher of the Burley High School. It is planned to discuss problems connected with artificial broading and have a demonstration in egg handling at next month's meeting, March 10th.

The Duroc and Poland China bred gilts for the demonstration hog farms have arrived and are established in their new homes. As soon as the cheese maker, who is on his way from Wisconsin arrives, the Rupert cheese factory will be opened. Enough milk has been guaranteed to make it possible to open the factory.

Merlin Bowman, a member of the Shorthorn Calf Club, has won the state championship twice and been awarded the Union Pacific Scholarship with traveling expenses included, to the State Agricultural College at Moscow. This is the third consecutive year that the local club has won the State Championship.

J. T. Montgomery.

#### North Platte

During the week ending February 10, final arrangements were made to lean one of the station's Holstein bulls to a group of farmers in Sheep Creek community. An agreement similar to the one used on the Huntley project was signed Saturday and the bull will be moved next week

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## North Platte (continued)

as soon as a suitable paddock can be made for him. He will be kept on one of the farms and the other members will drive their cows there to breed to him. The members of the club also signed a cooperative agreement to each contribute to the cost of the feed consumed by the bull, each member paying his pro-rata share according to the number of cows in his herd.

Arrangements were made during the week for a Farmer's Institute at Morrill on the 22nd and one at Wild Horse Schoolhouse on the 23rd. Livestock problems will be discussed at forenoon, afternoon and evening sessions.

In cooperation with County Agent Sheldon and Home Demonstration Agent Miss Boyes, a schedule was worked out for Mr. Jones who will be in the county three days next week for the purpose of organizing boys' and girls' clubs. Special effort was made to include in the schedule country points, especially consolidated schools that have shown an interest in club work.

D. H. Propps.

#### Shoshone

During the week ending February 10 twenty-seven requests for assistance were received and 16 farm visits made.

Activities of the week related chiefly to a poultry show and dairy school to be held at Powell, February 15 to 17, inclusive. The school and show were advertised by using an inside double page of the Powell Tribune, the program and premium list appearing in the middle surrounded by paid for advertisements by business men. Outside of the latter appeared plate material pertaining to poultry and dairy cattle. The amount received from the advertisements was \$115 which will be used to pay premiums on poultry. A poultry specialist and a dairy specialist from the Wyoming Extension Office will assist.

Seventy cattle were listed, cars ordered, and arrangements made for

shipment to Omaha on February 12.

G. A. Wright.

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#### WEEKLY REPORTS

Of the Offices of

## WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XXII.

February 17, 1923.

No.7

## Western Irrigation Agriculture

### San Antonio

During the two week period ending February 17 the maximum temperature recorded was 81 on February 13; minimum 21, February 5; greatest daily range 32; and precipitation 3.27 inches. A rainfall of .01 inch or more was recorded for nine days of the period although an appreciable amount was recorded on only three days. The entire precipitation came as slow, soaking showers and practically no run-off from cultivated fields occurred. The rains were general throughout the region. Field work was possible during part of one day only. Nine days were recorded as cloudy, two as partly cloudy and only three as clear.

The minimum temperature for the period, 21 degrees, is also the minimum for the winter to cate. This drop followed a period of warm weather during which practically all vegetation had been forced into. active growth, and resulted in the killing of most truck crops and the growing tips of many shrubs and trees. Flax and field pea plantings were also badly frozen. The morning of February 4 a precipitation of .43 inch was recorded, which came almost entirely in the form of sleet; a light fall of snow began in the early morning and lasted through, intermittently, until the morning of the 5th. This combination left a coating of ice on the north sides of trees and plants, and a layer of ice and snow about one and one half inches thick on the ground. Freezing weather prevailed from about 10.00 R.M. of Fabruary 3 until 10.00 A.M. of February 6; the minimum temperature of 21 degrees having occurred between 2.00 and 4.00 A.M. of the 6th. Local truck growers state that more damage resulted from this freeze than during any other freeze in recent years.

The only field work performed during the period consisted of plowing and subsoiling rotation plats B6-15,16 and setting trees in orchards A1 and B3. The major portion of the work has consisted of hauling sand and gravel for cement work; re-laying and repairing sewer and water line pipes; removing hay and partitions from the barn preparatory to rebuilding same; and making excavations for cement walks.

Geo. T. Ratliffe,

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#### Scottsoluff

The two weeks ending February 17, have been a continuation of the mildand open weather of the winter. The cold wave of the past week was not severe, although the coldest weather was registered so far this winter, the zero weather lasting only three days. The average maximum for the period was 34 degrees with a maximum of 50 on the 16th; the average minimum was 3 with a minimum of 19 below zero on the night of the 13th.

The work at the Station has been the usual routine work in caring

for stock.

In the dairy department all of the cows have freshened and the capacity of the barn is taxed to the utmost. All of them are doing well and it is expected to put two of the pure breds and one of the grades on semi-official test as soon as they can be prepared.

The ewes have commenced lambing and owing to the open and mild weather the loss has been very light. The lambs in the feeding tests are mak-

ing very satisfactory gains and are in good condition.

The status of the sugar best controversy remains unchanged. Very few farmers are signing up so far and the sugar company shows no sign of receding from their position. In one locality where the company is contemplating putting in a best dump there have been about 600 acressigned, which is practically all the acreage tributary to that dump. This would indicate that there is no very great principle involved, so far as this particular community is concerned.

James A. Holden.

#### Belle Fourche

On Monday of the week ending February 10 arrangements were made for demonstrations in connection with Boys' Clubs. On Tuesday Mr. Sutherland, agricultural teacher, the county agent, and the agriculturist carried 15 Nevell high school boys to the farm of Olle Tysdal where poultry culling was explained and demonstrated. The flock consisted of ordinary birds, but through good management have a little better than 50% egg production for the winter. This was the first culling since hatching and rany birds were culled. Mr. Paul Schemle's purebred Herfords were next visited and judged.

Mr. J. H. Holmes, of the State extension service arrived in Newell from Brookings the middle of the week to talk up and create interest in the State pooling of wool. Several days were spent among farmers and business nen, in this connection, with apparently good results.

Sixteen new members were enrolled for livestock clubs from one school after a talk and discussion of the question. The farmers generally are strong for these clubs while the banks have come forward so there will be little difficulty in financing the work. We are assured off strong live-

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# Belle Fourche (continued)

stock clubs with registered Duroc bred gilts, poultry, and registered Rabonillet bred ewes.

Frank E. Miller.

# DEMONSTRATIONS ON RECLAMATION PROJECTS

#### Minidoka

The principal part of the week ending February 17 was devoted to lining up work on demonstration farms, chiefly swine and dairy work.

The Rupert cheese factory has opened and is going nicely, receiving daily over four thousand pounds of milk. Prospects are that the farms will receive fifty-two to fifty-four cents for butter fat this month from the cheese factory. There is general satisfaction at the opening of these industries on the project.

The closing of our last bank on the north side of the project was a severe blow to farmers as well as village dwellers. There is some hope of reorganization or organizing an entirely new bank to carry on the business but this will require considerable time.

There are very few farms for rent and the demand exceeds the supply.

John T. Montgomery.

#### North Platte

Mr. Jones, the State leader for pig, calf and sheep clubs, was in the Valley the first half of the week ending February 17 for the purpose of organizing clubs. The first three days of the week were spent in driving Mr. Jones through Scottsbluff county v isiting consolidated schools and holding community meetings. Prospects are good for organizing 5 pig clubs and one calf club in the west end of the county. The rest of the county will be worked in the near future, and organization meetings will be held as soon as possible.

Mr. O. V. Summers, a state poultry specialist from the Extension service spent two days in Scottsbluff county visiting the 12 accredited flocks in the county and selecting birds for the season's mating.

Members of the Sheep Creek bull club transferred from the experiment farm the Holstein bull loaned to them. He was placed in a paddock

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# North Platte (continued)

built especially for him on the farm of Albert Best, one of the members of the club. The bull will be used on about 80 cows. Production records will be kept of all cows bred to him as well as of their daughters sired by him.

At a sale of Holstein cows held near the experiment farm on February 15 grade cows sold as high as \$165.00, many of them selling at \$150.00 and over.

A district conference of the county agents of the West end of the state was held in Bridgeport Friday under the direction of Mr. Lawrence. Ass't State Supervisor. Local problems in agriculture were discussed and the cause of the beet growers organization was presented by L. R. Leonard of the Farm Bureau.

D. H. Propps.

#### Shoshone

During the week ending February 17, 3 farm visits were made and 47 requests for assistance received.

Two carloads of cattle, consisting chiefly of cows and yearlings of the beef breeds, were received at Powell, marked and shipped to Chas. O. Robinson and Company. Omaha.

Three days were given to the Powell Poultry and Dairy School and Poultry Show. Extremely cold weather limited the exhibit to 66 birds, but interest in poultry was marked. The school was ably conducted by Mr. McNees and Mr. Robinson of the Wyoming Extension Office. On Frilday a dairy cattle judging demonstration took place at the farm of J. L. Werts, 12 farmers participating. One hundred and seventy people attended one or more of the sessions of the school.

The Powell alfalfa mill has stopped buying hay and baled hay is selling at \$12 per ton on the track. Forty cents per pound was the price of butter fat at the end of the week.

G. A. Wright.

# Uncompahgre

After arriving at Montrose, Monday night, following an absence of nearly four weeks, the greater part of the week ending February 10 was spent in the office catching up with accumulat ed work.

On Tuesday the annual meeting of the Water Users' Association was attended and a brief report given of the Washington conference.

A cattle feeder near Montrose lost five head of cattle in one day

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# Uncompangre (continued)

this week. A change of hay from first or second cutting to third cutting with the addition of two or three pounds of raw potatoes had been made just before the loss occurred indicating that the change in feed might have been responsible for the trouble, although the veterinarian who "posted" the carcasses said there were lesions of hemorrhagic septicemia present.

One application for the State-Federal tuberculin test was received.

H. A. Ireland.

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#### WEEKLY REPORTS

#### Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON REGLAMATION PROJECTS.

Vol. XXII.

February 24, 1923

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#### San Antonio

The wet weather of the previous two weeks continued through the week ending February 24. There were four days for which .Ol inch or more of precipitation was recorded, with a total of 2.53 inches for the week. This brings the total for the month of February to date to 6.05 inches. No field work has been possible and the time has been used to lay cement walks, repair farm buildings, saw fire wood, and do some pruning in orchards.

The maximum temperature for the week was 72, minimum 31, and greatest daily range 26. Four days were cloudy and three were clear. Field peas have made some recovery from the severe freeze of February 5 and flax which was frozen to the ground has started new growth from the roots. A small percentage of plants of both crops were completely killed.

.Geo. T. Ratliffe.

#### Scottsbluff

The average maximum temperature for the week ending February 24 was 53 with a maximum of 60 on the 23rd; the average minimum was 16 with a minimum of 11 on the night of the 20th.

During the week the hog house No. 1 has been placed in shape for the farrowing season which commences next week. The sows are all in good condition and with a continuation of the dry, mild weather there should be small losses in the spring farrowing.

Two of the pure bred cows are being fitted this week preparatory to going on a 7-day official test beginning the 25th of February.

The usual routine work of caring for the stock, repairing equipment and getting machinery and equipment ready for spring work has been carried on.

Mr. Edward Nelson, county agent for Morrill county, Nebraska, was a visitor at the station this week.

Mr. Holden returned from Washington on February 24.

James A. Holden.



#### Yuma

The maximum temperature for the week ending February 24 was 90; minimum 45. Daily temperatures in general have been much warmer than normal. The last killing frost was recorded on February 11. The minimum temperature for the winter was 25, this was recorded on three occasions, January 4, February 6 and February 11. Temperatures of 32 and lower were recorded on six days in November, five in December, seven in January and five in February.

Due to the unusual demand and price of low grade and "bolly" cotton, many are still picking all the late and immature seed cotton. This has made land preparation for spring planting very late in many cases. This low grade cotton is bringing from 20 to 24 cents per pound locally. It is estimated that there will be about a ten per cent increase in the cotton acreage on the project for the 1923 season, or approximately a total of 22,000 acres. The banks in Yuma have been active in advancing the "one variety for the project" idea. About 100 tons of good grade Acala seed was brought in this winter by the bankers association from Lower California.

Three weeks ago, a meeting was called in Yuma by Mr. Preston, the Project Manager, to discuss the economic and agricultural conditions on the project. Those in attendance included representatives of the banks, marketing associations, the farm bureau centers, University of Arizona Experiment Station and the United States Experiment Farm. It is planned by Mr. Preston to hold these meetings from time to time during the year,

The first carload shipments of lettuce went out of the Yuma valley last week. There will be approximately 200 cars produced this year. Station work performed during the week consisted of grading old pasture land B-33; plowing and manuring dates C-42 to 45; pruning dates along roadways; planting Indian corn B-4 and 5; and general irrigating

and hoeing.

E. G. Noble.

#### Demonstrations on Reclamation Projects

#### Belle Fourche

Extremely cold weather characterized the middle of the week ending February 17 necessitating two days of car lay-up.

Some work was accomplished in skim milk testing with a view in mind of detecting and correcting faulty separation. However, the acid used, not being of standard strength, gave inaccurate results so the testing is at a standard until full strength acid is available.

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# Belle Fourche (continued)

A number of trips were made in locating registered livestock for the boys and girls clubs. There is considerable difficulty in locating suitable stock for the sow-litter clubs, notwithstanding the reputation of the project for fine registered Duroc stock. Really first class stock is being held by breeders for herd improvement and not for sale.

Mr. Sam Bober of the government experiment farm gave an interesting and instructive talk before the Newell agricultural class in his office on the management and diseases of hogs. This talk was followed by stereopticon pictures and a lively discussion. At present 24 members are signed up from the Newell high school for livestock club work. Strong clubs also

exist at Vale, Nisland, and Belle Fourche.

Frank E. Miller.

#### Minidoka

The most interesting event of the week ending February 24 is the long promised visit of Mr. Rinehart to the project. Two days were spent visiting farmers who will conduct the swine demonstrations. Fourteen fine breeding animals have been brought to the project from outside for use on these demonstration farms.

We are having wonderfully fine weather. Farmers are cleaning up the fields preparing for spring work. On sandy farms they are repairing fences. Poultry production holds up well.

John T. Montgomery.

#### North Platte

During the week ending February 24, there were two Farmers' Institutes held--one at Morrill and the other at Wild Horse school house near Bayard. Sessions were held forenoon, afternoon and evening. There was a fair attendance at these meetings and considerable interest manifested.

Two of the pure bred cows at the experiment farm have been fitted this week for an official test to be run next week. This will enable the

station to put out among the farmers, bulls from tested cows.

Cooperative arrangements were completed with the officials of the Dairy Department of the University of Nebraska for the appointment of a local tester under the local supervision of the experiment farm. The tester is doing some official testing this week for Berton and Sons of Gering.

Mr. Edward Nelson, recently elected county agent of Morrill county, called at the experiment farm to get in touch with local conditions.

Cooperative work in dairying and club work will be carried on in Morill

county with Mr. Nelson.

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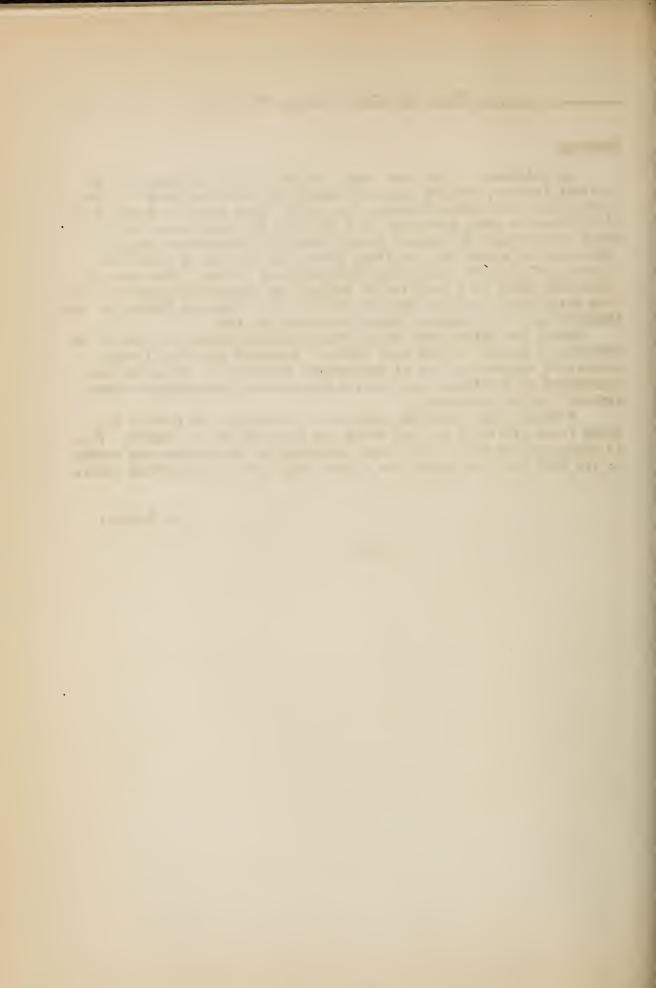
#### Shoshone

On Wednesday of the week ending February 24, accompanied by 10 project farmers, a dairy tour was conducted, which included a visit to two farms near Cody, Wyoming. On one of these farms is kept a herd of 25 Holstein cows, more than half of which are registered, and the owner is producing for market yearly about 100 Duroc-Jersey hogs. On the other is a herd of 20 milking Shorthorns several of which have given 8,000 lbs. of milk during one lactation period. The owner of this herd makes it a practice to raise a few acres of mangels for winter succulency, and much interest was shown by visiting farmers in this explanation of how mangels should be stored and fed.

During the latter part of the week much attention was given to an outbreak of disease in two farm flocks. Repeated autopsies finally discolosed typical lesions of Hemorrhagic Septicemia. Serum was administered by a veterinarian to sick animals and preventative vaccine ordered for the remainder.

A public sale occurred every day of the week. In fact it is being found difficult to find dates for sales due to the number. This is partly due to early sales being prevented by the weather and partly to the fact that the number who wish to sell out is larger than usual.

G. A. Wright.



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WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS

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### Demonstrations on Reclamation Projects

### Belle Fourche

During the week ending February 24, twenty one farm calls were made.

At the farm of N. A. Viken the Department's principles of supplying home needs from the garden, cows, and chickens were vividly illustrated. Mr. Viken not only supplies his own home with the products from these sources but in addition produces enough to add considerable to the cash returns from the farm. His small garden has brought in over \$400 in some years. Mr. Viken received \$416.50 from strawberries from one acre in 1920. During the past two years the grasshoppers ruined a large portion of the fruit, yet he received over half of this amount. His former pure bred white Wyandottes have run out and he wants one of his boys in club work to again bring his flock up to standard. A small orchard of about 20 apple trees yield annually.

Dr. Niederauer, an accredited veterinarian from the State office tested 70 head of cattle from three herds for tuberculosis, finding two reactors. His visit to the project has aroused much interest in this work so there is a willingness to sign accredited herd agreements

and an active demand for further testing.

The feeder pig industry received an impetus from the letter contest on, "Why I Believe Feeder Hogs Are Profitable." This contest pushed by a local newspaper, has brought written replies from many feeder hog growers in several counties. The writers are practical farmers giving their own practical experience. The winner of the contest is a Vale farmer who followed the 2 per cent grain ration with alflafa as recommended by the experiment station.

# Belle Fourche (continued)

Butter fat went from 43 cents to 45 cents early in the week and has held at this price. With fine alfalfa hay worth from \$6 to \$9 per ton dairy farmers are doing the best of any livestock men on the project at present. Many dairies bring in returns of 75 cents per cow per day from cream sold. In addition the farmer has the valuable skim milk for hogs and poultry.

Frank E. Miller.

#### Ne wlands

During the week ending February 17 there were received forty four calls for assistance.

There has been considerable interest in the exchange of dairy cattle during the week and considerable assistance has been rendered in this connection. The records of the Hard Testing Association are frequently made use of by persons contemplating the purchase of dairy cattle here.

One article of 1,200 words was contributed to the local papers on the subject "Newlands Project makes Big Showing in Dairy Development". In this article the herd records obtained for the past eight months were used to set forth the advantages of dairying for Newlands Project farmers during these times of uncertain markets for other kinds of farm crops.

During the week ending February 24,  $3\frac{1}{2}$  days were spent away from the project at Davis, California, for the purpose of attending a dairymen and swine growers meeting. The principal object in attending this meeting was to meet a large number of Cairymen of California and find out if possible, from them what the outlook for dairying is in California, since the dairymen on the Newlands Project are directly affected by conditions in California. Feeding conditions were reported to be excellent at this time of the year and butterfat prices satisfactory. Breeders of pure bred stock, however, report very little demand for breeding stock as compared with former years. They seem to feel that there is a general changing from dairying to fruit and vine crops. If this is the situation, and there seems to be such a condition existing, judging



# Newlands (continued)

from all reports, it will react very favorably on the dairy industry of the Newlands project.

An article of 900 words was contributed to the local paper on "No Danger of Overproduction of Dairy Products. Cold Storage Reports Show Stock Below Normal. 1923 Prices for Butterfat Start Off High."

L. E. Cline.

#### Minidoka

Week ending March 3, 1923.

Farmers called upon are very much in favor of an area tuberculosis test for all cattle on the project. It seems to be a matter of securing the cooperation of state and Federal officials to put the test on.

County Agent Barber gave an interesting discussion on candling and grading eggs at the poultry meeting.

J. T. Montgomery.

#### North Platte

Practically the entire week ending March 3 was spent at the experiment farm running an official test on a couple of Holstein cows. Arrangements have been made with the Dairy Department of the College of Agriculture to accept as official, tests made at the experiment farm under our supervision. Two of the pure bred cows in the herd had never been tested and had bulls suitable toput out with farmers on a cooperative plan. It aces not seem advisable to put out these bulls until the cows were admitted to the Advanced Registry. The cows are both good individuals and made very creditable records.

Two young bulls were obtained this week from S. Barton and Sons' herd. The bulls will be developed here at the experiment farm and put out with worthy farmers on a cooperative plan similar to the one used by the U.S. Dairy Division on the Huntley Project. Mr. Barton has consented to put out on the same plan and under the supervision of the experiment farm one of his own good bulls that is old enough for service.

Two calls were answered from farmers who had sick hogs. A very severe outbreak of cholera was found on one of these farms and assistance was given.

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#### Shoshone

During the week ending March 3, 39 requests for assistance were received and 9 farm visits made.

Four dairymen in the vicinity of Deaver were visited and arrangements made for continuing milk testing and record keeping for another year. More interest seems to exist in this community now than a year ago.

Requests for information concerning the care and feeding of breeding ewes are frequent. Several owners are, up to the present time, successfully using potatoes in a ration with alfalfa hay in amounts varying from 1 to 3 pounds daily. In most cases the tubers are sliced. Flocks which have been receiving 2 pounds a day for a month or more look thrifty and are in good flesh.

On Friday a conference of farmers, business men and county agents from 3 Big Horn Basin counties was attended at Greybull, Wyoming, --- a conference at which were partially laid plans for a four county corn growing contest and also for a corn show to be held probably sometime in November. The field contest is to include the fodder feature, but the show is to be solely a grain exhibition.

Butterfat at the Powell Greamery was 40 cents per pound during the week.

G. A. Wright.

### Uncompangre

The last half of the week ending March 3, was spent on sick leave following only  $3\frac{1}{2}$  days on duty. Ten office visitors were received and part of one day was spent helping Mr. King mix prairie dog poison for distribution in Montrose County or on the Uncompange project:

H. A. Ireland.



# WEEKLY REPORTS

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# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

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March 10, 1923.

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# Western Irrigation Agriculture

# Scottsbluff

The average maximum temperature for the week ending March 10 was 42 with a maximum of 62 on the 8th., the average minimum was 17, with a minimum of 4 on the 4th. There has been no precipitation and so far little wind. The weather has been very favorable for the lambing and farrowing season.

The Superintendent spent one day with the Dairy Short Course held at Torrington and Fort Laramie by Mr. Propps and discussed farm problems

at these meetings.

The official test of two of the pure bred dairy cows was completed this week. One of them made a very creditable record, producing 630 pounds of milk and 26.3 pounds of butter in 7 days.

No farm work can be done yet as there is considerable frost in the ground. Within the next two weeks, however, it is believed that

field work can be commenced.

During the latter part of the winter there has been considerable moisture in the winter wheat section of the Valley and undoubtedly will help that crop, much of which had been given up as lost owing to the extremely dry fall and early winter.

James A. Holden.

#### Yuma

The maximum temperature for the week ending Marchlo was 79, minimum 32, and precipitation 0. The past two weeks have been cooler with more cloudy and windy days than were recorded for the previous period. This cooler weather has stopped the early cotton planting. A few fields

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# Yuma (continued)

of short staple cotton were planted during the warm spell in February. The bulk of the crop will go in around the first of April.

There is a general feeling of optimism for the coming season. The cotton growers are anticipating better yields and prices, and at this time of the year are giving much attention to better seed for planting purposes. The alfalfa growers are building up their organization to handle the seed, hay and straw.

Work on the station during the last two weeks has been devoted to the grading of roads; manuring date nurseries; cleaning ditches and repairing irrigation structure; planting cuttings of grapes, figs, and various S.P.I. plants in nursery rows; planting tomato varieties; general irrigation and cultivating.

Professor Schoonover of the University of California Extension Service was a station visitor March 5th. A general survey of citrus culture and possibilities on the project and Yuma mesa was made during his visit in the community.

E. G. Noble.

# Demonstrations on Reclamation Projects

# Belle Fourche

Twenty farm calls were made during the week of March 3 in the interest of accredited herd work and testing milk, cream, and skim milk.

Mr. H. D. McCullough of the State Extension Service visited two schools. One class of 7 was organized at Vale in farm management practice. The farm management club at Newell, under a Smith-Hughes teacher was commended for the good work being accomplished.

The sale of swine at C. J. Kendall's farm was a big success on the part of the seller as well as the buyer. Due to the very heavy roads no outside buyers were present and so this head of fine registered Durocs will remain on the Project. The sale averaged \$70 per head.

Frank E. Miller.

#### Minidoka

During the week ending March 10 we located a rather mild outbreak of chicken pox and diptheric roup in poultry at Haven Leigh's. Professor Parkhurst of the Poultry Department of the University of Idaho recommended treatment and gives a favorable prognosis.

The first test of milk of fifty-three patrons of the Cheese Factory averaged slightly more than 4 per cent, which is a good average for cows

kept under the present project conditions and on alfalfa land.

Opening of a silo on the Hamilton farm that was filled very late with dry corn revealed heavy spoilage, due probably to difficulty in packing the material tightly enough. The material was not cut very fine. A good many pieces two or three inches in length ran through the machine. The material about a foot away from the walls of the silo had gone through the usual fermentation and was a very fair quality of ensilage.

The monthly poultry meeting at Burley with Mr. Pren Moore, the State Extension Poultry Specialist, as principal speaker, was well attended and proved a most interesting and instructive meeting. The discussions consisted principally of practical problems in incubating and feeding baby chicks, indicating a quite general interest in production of better

laying flocks for next year's operations.

J. T. Montgomery.

#### Newlands

During the week ending March 3 some time was devoted to assisting in the assembling of a cooperative shipment of hogs to be marketed at Reno, Nevada. The shipment was sent out on Tuesday evening and weighed over the scales Wednesday morning. The price of \$9,25 was received at Reno for this shipment of hogs. They were quite uniform in size averaging about 160 pounds each. A trip was made to Reno to assist in marketing this car.

One article was contributed to the local paper on the subject of the Pacific Slope Dairy Show which is expected to be held in San Francisco during the coming late summer. An organization meeting was held in Davis, California during the stockmen's meeting for the purpose of promoting a dairy show for the west, which will eventually be on a par with the National Dairy Show of the East. Nevada has been invited to participate in this show. This is considered a very good opportunity for the Newlands project to do very effective advertising and draw attention to its dairy advantages. An effort will be made to participate in the show.

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# Newlands (continued)

On Saturday of the past week a trip was made to the Fernley District for the purpose of attending a farmers meeting. At this meeting a talk was made before the farmers on the subject of "Dairying as a Profitable and Stable Industry for the Newlands Project". Annumber of conferences were held with farmers at this meeting and considerable interest was shown in the dairy industry. Arrangements were made for frequent trips to this part of the project to confer with the farmers on the subject of dairying and swine production. This district has devoted its attention to annual cash crops for the past few years and are now anxious to participate in more stable lines of farming.

L. E. Cline.

#### North Platte

During the week ending March 10 a short course was conducted at two different points in Goshen county, Wyoming. These meetings were planned in cooperation with County Agent Morse and were in the nature of a school for dairy farmers. A lecture and demonstration was given each afternoon at Fort Laramie and each evening at Torrington. The following subjects were hendled at each place:

The Magnitude and Importance of the Dairy Business
Milk and Milk Production
Building up a Dairy Herd
Feeding Dairy Cows
Care and Management of the Herd
Dairy Sanitation (Illustrated)

The meetings were fairly well attended and considerable interest was shown. No doubt they will be the means of putting the farmers in these communities in closer touch with the demonstration work. The forencess were spent calling on farmers who are milking cows, discussing with them the dairy business and especially the importance of the use of good bulls.

D. H. Propps.



#### Bhoshone

During the week ending March 10, a great deal of interest in the proposed corn growing content was evident, not less than 20 farmers requesting information about some one or the other phase of corn production. Eighteen men have already requested to be supplied with the seed to be furnished by the C. B. and Q R. R. Co. One article was prepared for the Powell Tribune and one address given before the Powell Commercial Club.

Owing to a controversy among cream stations the price of butter fat at Powell ascended from 40 cents to 46 cents per pound in 3 days and by Saturday had descended to 38 cents. A trip to Francie and Deaver was made to distribute milk sample bottles and to assist several farmers with feeding and breeding problems.

Three men were given assistance for several hours each working out a system of farming which includes crop rotation and live stock. The demands for help of this kind are becoming more numerous.

G. A. Wright.



# WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

March 17, 1923

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# Western Irrigation Agriculture

#### Scottsbluff

The average maximum temperature for the week ending March 17, 1923 was 35, with a maximum of 48 on the 16th; the average minimum was 6, with a minimum of --14 on the night of the 16th. The average daily vind movement was 383 miles, or an average hourly movement of 16 miles. In consequence the soils in the sandier districts have been blowing badly, particularly on potato ground.

Farm work has not started as yet. With the winds of the past week much of the frost has gone out of the ground and plowing can start soon.

There is no change in the status of the beet growing controversy. It is reported that in one locality the farmers have purchased seed wheat and if the company persists in their offer of \$5.50 minimum, all beet ground will be seeded to wheat.

James A. Holden.

# Demonstrations on Reclamation Projects

# Belle Fourche

Twenty-two farm calls were made during the week ending March 10 in the interest of stock selection for boys' and girls' clubs and in the developing of accredited herds by obtaining signatures to the required agreements.

A sale of Project registered Durocs at Whitewood averaged \$74 per head which tops all other sales here and approaches the best blue-ribbon sales of the State. Mr. Sam Bober of the experiment farm was present at this sale to demonstrate the treatment of hogs against worms by using santonin and calomel capsules administered with a balling gun and jaw



# Belle Fourche (continued)

spreaders. One sow with young pigs showed exident signs of necro-bacillosis in the litter. A demonstration with one pig brought out forcibly the necessity for prompt treatment if heavy losses are to be avoided.

Two community meetings were attended during the week. At one meeting over 50 persons attended in spite of the heavy roads. Better stock and better management is the aim of most farmers at present. One carload of registered Holsteins will soon be shipped to the project as a foundation for a Vale farmer's herd. Two Newell boys will soon purchase registered calves of excellent dairy type.

Butterfat is now 40 cents. Eggs 20 cents.

Fifteen farm calls were made during the week ending March 17. Due to the cold damp weather Necro-bacillosis is causing losses among young pigs on project farms. Sanitary measures and treatment have been demonstrated in all areas. By using prompt and proper methods, farmers can prevent serious loss from this disease.

Early in the week a conference of field men and county agents was held in Rapid City. Mr. Frants Lund of the United States Department of Agriculture gave a demonstration on the cutting and curing of farm meats. Mr. Lund spoke strongly in favor of farm killing and curing of meats and of the benefits arising from such practices on an extensive scale.

A big problem in connection with the proposed Feeder-Hog show was equitably ironed out in a joint meeting of the County Fair Board and the Newell Commercial Club. The idea of holding a separate Feeder-Hog show before the County Fair has been given up. The Fair Board proposed giving a special day at the fair for this important industry. Enlarged space, bigger premiums, and united effort will make this the banner day of the fair.

The Project is now practically assured of receiving a carload of high class Holstein dairy cattle during the summer. This carload will consist mostly of bred Holstein heifers which scattered around with one or two on a farm will become the nucleus of a fine registered herds.

Frank E. Miller.



#### Minidoka

The principal part of the week ending March 17 has been devoted. to the pig demonstration farms and to selling surplus beef bulls on the project. We have some calls from ranchmen for beef bulls. The most marked feature of these calls is the low price at which they demand the bulls.

General agricultural conditions on the project continue about the same. The usual hopefulness of the spring-time has begun to manifest itself. One bank on the north side of the project has been reopened by Boise capital and they will afford some assistance to farmers to finance the crop.

The beet acreage contracted on the project is unusually large. The increase in beet acreage will be at the expense of potato acreage, which is sane agriculture.

There is an increased interest in dairy industry and we are working at present on perfecting a Pairy Loan Association which will enable farmers to buy cows.

The range ewes which have been wintered on the project are lambing and will be ready to go to the range as soon as the season opens up. They wintered in excellent condition.

There will not be much hay left over on the project.

John T. Montgomery.

## Newlands

During the week ending March 17, a cooperative shipment of culled out dairy cows and dairy steers was sent to Reno, Nevada. Arrangements were made prior to shipment for the sale of these animals. The prices received were  $6\frac{1}{2}$  cents for good steers and  $4\frac{1}{2}$  cents for good cows. All shipping expenses amounted to 26 cents per 100 pounds. The shippers were very well satisfied and a second cooperative shipment will be made in the near future. A trip was made to Reno in company with one of the shippers to observe the grading of this carload of stock.

One farmers' meeting was attended on Wednesday night, where a talk was made on dairy topics. About fifty were present at this meeting.

Considerable time was devoted during the week to summarizing the Herd Testing Association report for February. During this month 835 cows were



on test. The average production per cow was 619 pounds of milk and 25.6 pounds of butterfat. There were 100 cows in the association which produced over 40 pounds of butterfat for the month. The high herd of over 15 cows (Holsteins) produced 1129 pounds of milk and 3616 pounds of betterfat per cow. The high herd of under 15 cows (Jerseys) produced 660 pounds of milk and 51.07 pounds of butterfat per cow.

L. E. Cline.

## North Platte

During the week ending March 17, some time was spent in cooperation with County Agent Sheldon lining up a schedule for pig club organization meetings. Club members will sign up right away and organizations will be completed so the boys and girls may get their pigs located and ready to start keeping records about the 1st of May. Two other regular monthly community farm bureau meetings were attended during the week and illustrated lectures on live stock given.

Sickness was reported in a herd of pigs and examination showed a severe case of flue together with symptoms of cholera. The well hogs were vaccinated and instructions given as to feeding and care of the herd.

Edwin Nelson, recently employed as County Agent in Morrill county, called at the experiment farm this week to inquire about a Holstein bull for one of his farmers and I get suggestions in regard to dairy and pig club in his county. A few days will be spent with him at the earliest opportunity.

D. H. Propps

## Shoshone

During the week ending March 17, sixty-seven requests for assistance were received and mine farm visits made.

A trip was made to Deaver to collect milk samples and to attend to several requests for assistance from farmers who milk cows. In all



# Shoshone (continued)

thirty five milk samples were tested.

In the Powell Community, plans for the Boys' and Girls' Livestock Clubs were worked out and meetings of school pupils who wish to enter calf, pig, and sheep clubs were attended. Three addresses on "Annual Breeding" were given to agricultural students of the High School.

The number desiring to secure seed to plant from one to five acres of corn has reached fifty and inquiries relating to corn culture were numerous. Difficulty is being found in securing bean seed and also grains. The grain produced on the Project being generally contaminated with wild cats. Arrangements have been completed by which Park County bean and turkey growers may sign Big Horn contracts and market those products through the Big Horn County Association, which has already contracted for fall delivery of 600,000 pounds of beans to an eastern dealer at 5 cents per pound, Big Horn Basin points.

G. A. Wright.

#### Uncompangre

Visits were made during the week ending March 17 to several farms where large amounts of potatoes are being fed to hogs and cattle. It is estimated that nearly a half million sacks (100 lbs. each) of potatoes, 1922 crop, will be used in this way in the Valley. Results in some cases are very doubtful as far as profit is concerned, but in view of the fact that cellars are all full of potatoes which cannot be sorted and sacked and put in cars for much less than the market price to say nothing of the loss in the culls, a great many men who can get the stock prefer to feed potatoes without sorting. Most of the hogs being fed are from the Dolores section, and look the part, being stunted, unthrifty, and in some cases, at least, badly infested with worms.



## Uncompangre (continued)

H. Magraw is feeding about 600 of these hogs, giving hay and cooked potatoes with a little corn added the last two or three weeks to finish. The feeding of small amounts of grain from the start was advised but has not been done. Mr. Magraw hopes to get more for his potatoes than he could sell them for on the market. He has very poor shelters and recent storms have caused some loss. Mr. Magraw is feeding 350 under the same conditions. Mr. Rexroad is feeding 600 on potatoes and a small amount of grain.

T. W. Monell has 200 on hay which he buys for \$8.00 a ton in the stack, potatoes and ½ lb. grain daily. On one lot he sold recently he lost money. Catlin and Catlin are feeding 550 Hereford steers-weaners and yearlings about 10 lbs. of potatoes daily and all the hay they will eat. They think they are making good gains. These and other such operations are of an emergency nature to take care of the surplus potato crop. Men who have no stock are selling their potatoes to feeders at 10 cents a sack, unsorted, without the sack, some of them delivering the potatoes at that price.

One flock of 175 hens was culled and another inspected for disease. One meeting was attended and two articles written for local papers. One Sheep Club boy was assisted in selecting a purebred Hampshire ewe from A. C. Nash's flock for which he paid \$50.00. The ewe later gave birth to three strong ewe lambs. Twenty five of Mr. Nash's ewes have lambed 61 lambs this spring and saved 52 to date.

Four schools were visited on club work.

Considerable time was spent in the office this week on account of recent illness. Twenty persons called for information or assistance on various lines. A list of men who own registered sires of different classes and breeds on the project was prepared from the census taken by the Reclamation Service in November 1922. The list shows the numbers of farms owning registered male animals as follows: Holsteins 36; Jerseys 15; Guernseys, 6; Shorthonns, 13; Herefords 24; Duroc-Jerseys, 27; Poland-Chinas, 18; Sheep, all breeds, 8; This list while probably more or less incomplete and inaccurate, will be used as a basis for the purebred sire project. Lists of owners of purebred dairy bulls have been sent to all creameries, cream-receiving stations, etc., on the project to be posted for the benefit of anyone wishing to locate such animals.

A trip was made with Mr. Squirrell to select a Hereford Bull.

Two farms were inspected by request for the United States Veterans'
Bureau.

A community club meeting was attended near Delta and community programs discussed. A request for a stereoptic on "show" on March 22, was made and a set of slides will be shown there on that date.

H. A. Ireland.



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## Western Irrigation Agriculture

#### Newlands

For the four-week period ending March 24, Mr. Knight reports as

follows:

"The continued warm weather of the past few weeks has made the soil ideal for planting of the hardier plants. The rotation plats D2, D6, E3, E4, E5, E6, F8 and F12 have been seeded to wheat. The garden has also been seeded to wheat. The soil on these plats is of such a sandy nature that it is necessary to seed some such grain in order to prevent the shifting of the soil during the late spring winds.

"Such vegetables as carrots, peas, onions, turnips and radishes have been planted in the garden. The truck crops that are susceptible to frost have been planted in the green-house. At present these plantings consist

of tomatoes, egg plant, pepper, cabbage, tobacco and lettuce.

"The alfalfa plats H12 and H13 have been plowed. It is planned to use these plats this year for variety tests on corn and potatoes. The results obtained from these tests last year were rather questionable. This was due to the blight in the potatoes and the spotted character of the soil used in the corn tests. As these two plats, H12 and H13, have been in alfalfa for a number of years, it is hoped that better results will be obtained this year in these particular tests.

"During the latter part of February the orchard was pruned and made

ready for the dormant spraying with lime sulfur.

"All the young shade trees grown on the nursery plats have been given out to the farmers and other people desiring them. In all about 600 trees and rooted cuttings have been distributed.

"At present the old alfalfa plats are being spring-toothed. This has

proven to be of great benefit in this locality.

"All the irrigated ditches and drains are cleared of weeds and are being conditioned for the coming irrigation period. The water has been turned into the main canals. It has been necessary to replace several irrigation boxes and to rip-rap some of the ditches for a short distance near the check gates in order to prevent the light soil from washing and causing a break in the ditch bank."



## Hog Feeding Experiments

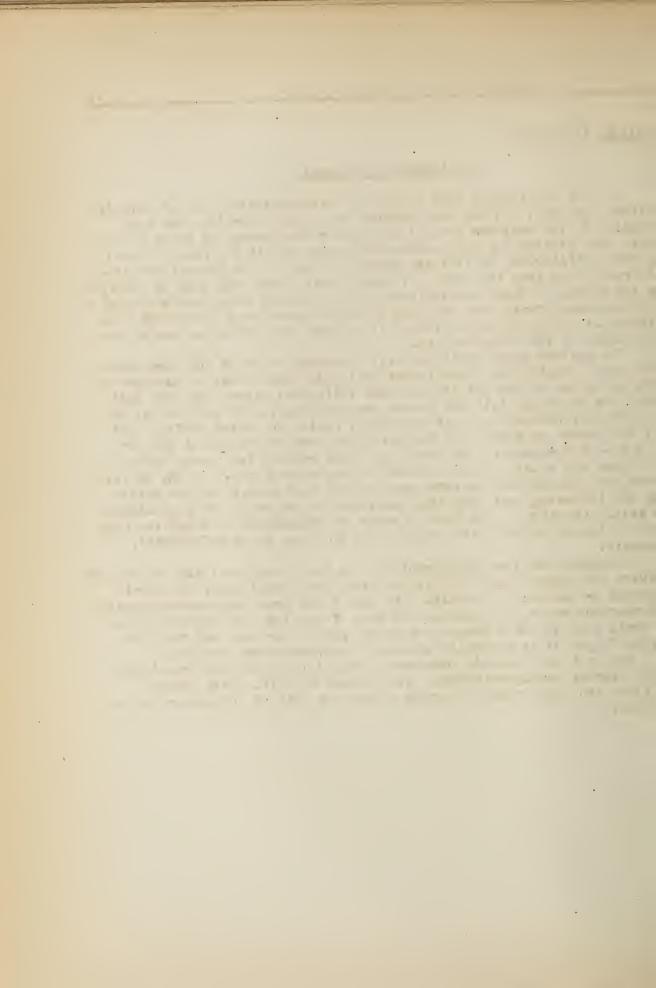
In 1916 experiments were started to determine the value of alfalfa pasture for hogs. It has been obvious for a long time that the hog industry in the Newlands Project is slow in developing and these experiments were started for the purpose of finding out if hog raising could be made profitable. In 1921 the number of hogs on the project was considerably less than the number of dairy cows. Does this lack of interest in the raising of hogs result from the hog business being unprofitable? From the experiments here reported it would appear that under some conditions at least, it is profitable to include pig growing as one of the side lines of the farm business.

The pasture experiments were all conducted in about the same manner each year. Small pigs about twelve weeks old were placed in pasture as soon in spring as the alfalfa had made sufficient growth and were left until the growth in fall had become unsatisfactory. In addition to the pasture they received a 2 per cent daily ration of rolled barley, that is, two pounds of barley was fed daily for each 100 pounds of hogs in pasture. For example, a 75 pound hog would receive 1.5 pounds and a 150 pound hog would receive 3 pounds of barley each day. In the experiments the pigs in each pasture were weighed once a week and the ration for the following week corrected according to the weight thus obtained. In actual practice on the farm it would be unnecessary to weigh the pigs since estimates of the live weight would be found to be sufficiently accurate.

Averaging the five experiments it has been found that pigs on pasture require 265 pounds rolled barley for every 100 pounds gain. The pork produced on one acre of alfalfa with this 2 per cent supplementary ration has averaged about 2200 pounds. An acre of alfalfa will support about 40 small pigs in early summer but as the season advances and the pigs become larger it is generally necessary to provide more pasture.

For each 1,000 pounds increase in weight there was required 2,650 pounds barley and approximately 2,500 pounds alfalfa. With alfalfa at \$10 a ton and barley at varying prices the cost of production was as

follows: -



| Cost of barley | 1,000 pounds gain |
|----------------|-------------------|
| per cwt.       | live weight cost  |
| \$ 1.50        | \$ 53,00          |
| 1.75           | . 59.00           |
| 2.00           | 66.00             |
| 2.25           | 73.00             |
| 2.50           | 79.00             |

The value of 1,000 pounds of pork at varying market prices is as follows:-

| Selling price | Value of     |
|---------------|--------------|
| per pound     | 1,000 pounds |
| \$ .07        | \$ 70.00     |
| •08           | 80.00        |
| •09           | 90.00        |
| • 10          | 100.00       |
| • 11          | 110.00       |
| •12           | 120.00       |

From the two tables given above the probable margin of profit can be easily determined. For instance in 1922 barley cost \$2.25 per cwb. and hogs sold in the fall at 10 cents. From the first table it will be seen that the cost of production was \$73.00 and the selling price \$100.00 so that the profit per 1,000 pounds was \$27.00. Had the pigs been sold at 7 cents the business would have been conducted at a loss.

The labor involved in raising pigs on alfalfa is not very great, especially when running water is available. The only daily labor required is the feeding of the grain once a day.

## Value of Skim Milk as Hog Feed

In addition to the barley and pasture feeding experiments another test was made in 1922 comparing barley and skim milk as supplementary rations to alfalfa. Twenty pigs were divided into four lots containing five pigs each as follows:-

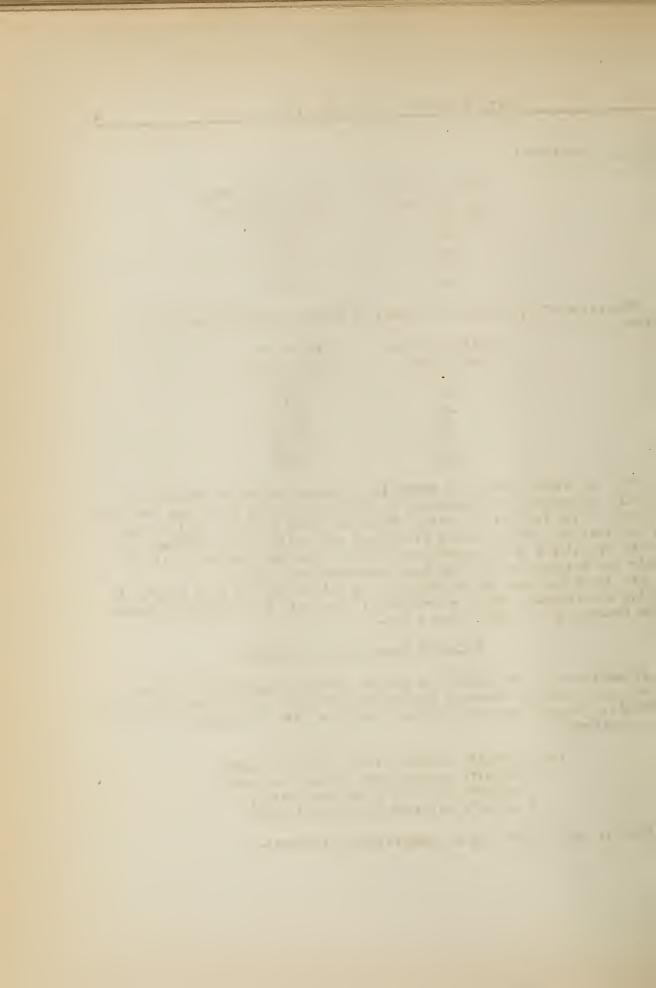
Lot 1 Alfalfa pasture with 2 per cent barley

2 Alfalfa pasture with 10 per cent milk

3 Alfalfa hay with 2 per cent barley

4 Alfalfa hay with 10 per cent milk

Briefly the results may be summarized as follows:-



1 Practically no difference was obtained in the gains of the pasture lots and the dry hay lots.

2 The pigs on skim milk and alfalfa made nearly as good gains as those receiving barley.

3 In feeding value 100 pounds of skim milk had about the same value as 15 pounds barley.

The fact that the pigs receiving alfalfa hay made as good gains as those on alfalfa pasture was something of a surprise. The hay fed to the pigs was selected so as to give them as fine stemmed hay as possible.

Calculating 100 pounds of skim milk as equivalent in feeding value to 15 pounds of barley, the farmer can count his skim milk as being worth the amounts given in the table below, varying according to the price of barley.

| Cost of | Value of  | Cost of producing 1,000 pounds pork |
|---------|-----------|-------------------------------------|
| rolled  | skim milk | with either milk or barley at       |
| barley  | per cwt.  | prices given and hay at \$10        |
| \$ 1,50 | \$ .22    | \$ 53.400                           |
| 1.75    | .26       | 59.00                               |
| 2 -00   | ,30       | 66.00                               |
| 2.25    | .34       | 73.00                               |
| 2.50    | .37       | 79.00                               |

This means that dairymen can sell their skim milk to hogs at about 30 cents a hundred pounds and if the market price of hogs exceeds 7 cents a pound he will make an additional profit.

We have not yet conducted any experiment feeding both barley and skim milk to the same lot of hogs but it is possible that this will be found to be the most economical method. It would seem that I per cent barley ration together with a 5 per cent milk ration should produce better gains than either a 2 per cent barley or 10 per cent milk ration when fed alone with alfalfa.

## "Hogging Off" Wheat

In 1916 an interesting and instructive experiment was conducted on the farm of C. G. Swingle. In this experiment 34 pigs weighing 2140 pounds were turned into 1 and 1/4 acres of wheat in which Canada field peas had been sown. The peas did not develop well and the stand was poor but the



wheat growth was excellent. At the end of 21 days the pigs were removed and it was found that they had gained 950 pounds in weight on 1 and 1/4 acres which is equivalent to 760 pounds from one acre.

Calculating the value of this grain at various market prices for hogs we have:

760 pounds gain at \$0.07 is \$ 53.00 .08 " 61.00 .09 " 68.00 .10 " 76.00 .11 " 84.00

At any rate the gains were equal to the value of the wheat had it been harvested, threshed, and marketed and practically no labor was involved. Furthermore the profits were actually greater than shown in the above table for it was necessary to remove the pigs while there was still an abundance of feed in the field, for if they were kept on till the wheat was difficult to obtain there would be a reduction in weight and consequently a loss. After the fattened pigs were removed stock hogs were turned in and maintained for several weeks so that the figures above do not represent the full profit obtained.

The wheat pasturing experiment indicates a profitable method of finishing hogs and I am sure that the dairymen at least who have an abundance of skim milk can profitably feed hogs to the point where they are ready for finishing. In this section where grain is high it is most economical to finish and sell hogs at between 150 and 200 pounds live weight.

E. W. Knight.

#### San Antonio

For the four-week period ending March 24 Mr. Ratliffe reports as follows:

The climatic conditions during the four weeks ending March 24 were decidly unfavorable to practically all vegetation. During the first two weeks of the period cloudy and comparatively warm weather prevailed; the third week was mostly clear with strong, steady winds from all points ... of the compass. The minimum temperature for the winter was recorded at the beginning of the fourth week -- 20 degrees the night of March 19. There was very little, if any, wind at the time of this freeze and the minimum temperature reached varied, in different localities, according to the elevation due to air drainage. The abundant rainfall which occurred during February, coupled with the comparatively mild weather, encouraged most all plants which had not been completely killed by the hard freeze of February 5 into renewed growth. This new growth, as well as all spring seeded crops which had emerged, was badly frozen. Corn in the rotations suffered so severe a reduction in stard that all plats were replanted March 22. Although mile plantings had only started to emerge, it is highly probable that all plats of that crop will also have to be replanted. Present indications are that hayssorghums; sumac and Sudan grass; which had barely started germination will come through without serious loss. As nearly as can be determined now only the earliest flowering varieties of fruit trees were severely damaged by the freeze.



## San Antonio (continued)

Work on the station during the period included preparing seed bed for and planting, all spring crops except cotton; spraying orchards; setting out orchard and ornamental plants; plowing rotation plats scheduled to have been plowed during February but which could not be plowed during that month on account of continuous wet weather; cultivating orchards; taking "planting time" soil samples; miscellaneous weeding; hauling sand and gravel; building cement walks; and miscellaneous cleaning around the farmstead.

Plantings of field crops were made as follows: - Corn on rotation and tillage plats planted March 7 and 8, replanted March 22; corn variety and spacing tests on field C5 March 8; corn selection plats, Ludiwig variety on Herbst's field March 9, Laguna variety on field F3 March 24; mile and sorghum in 4.1 foot rows on rotation plats March 10; sorghum in 8" drills on rotation plats March 12; sudan grass on rotation plats and sorghum variety test on Field C5 March 13; dwarf blackhull kafir on field AB8 (sorghum midge control test), and annual sweet clover on A3 March 14. Live material of four varieties of grass received from the office of Forage Crop Investigations was added to the grass nursery on A3 March 17 and 18.

Dr. O. F. Cook and Mr. R. D. Martin of the office of Crop Acclimatization and Adaptation Investigations visited the station March 20.

Geo. T. Ratliffe.

#### Yuma

The maximum temperature recorded for the two week period ending. March 24 was 85; minimum 30 on March 2 and two additional frosts on the 16th and 22nd, the latter making the latest frost recorded here since 1916. In addition to the cold nights there has been considerable wind throughout the last two weeks. Weather conditions in general have been very unsatisfactory for planting cotton. The extent of planting in the Yuma Valley is not known but on the California side of the project there will be about 300 acres to replant. The general practice is now to hold off watering for cotton until the ground warms up and the wind moderates.

The project was visited March 16 and 17 by U. S. Senators Norris and Ashurst, and the appropriation and arid lands committee of the House. As mass meeting was held in Yuma the evening of the 16th at which several of the visitors talked on the levee problems of the lower Colorado river and also on the possibility of constructing a dam at Boulder Canyon. This delegation came to the Southwest as the guests of the Imperial Valley Irrigation District and the side trip to the Yuma project was made after seeing the upper Colorado river and the entire Imperial Valley both on this side of the boundary line and in Mexico.

## Yuma (continued)

Station work for the last two weeks has included the planting of cotton on the irrigated rotations; top dressing Berseem clover plats D-18 to 26 with acid phosphate at the rate of 200 pounds per acre; clipping alfalfa varieties, C-36 to 41; digging out male date palms A-16 to 21; transplanting nursery stock; general irrigating, cultivating and hoeing.

Messrs C. G. Marshall and D. G. Polhamus from the Chula Vista, Calif-

ornia station, were visitors on March 18th and 19th.

E. G. Noble.

## Demonstrations on Reclamation Projects

#### Belle Fourche

The price of butterfat jumped twice during the week ending March 24 and is now selling for 45 cents per pound.

Much of the week was spent in making perconal calls on farmers to get signatures for accredited-herd agreements. On the coling visit of the state veterinarian to the project, at least twenty additional herds will besigned up and ready for the tuberculosis test. Orders were received during the week for three more bred registered Holstein heifers. We are now assured a full carload of high class dairy animals which are to be purchased from among Wisconsin's best.

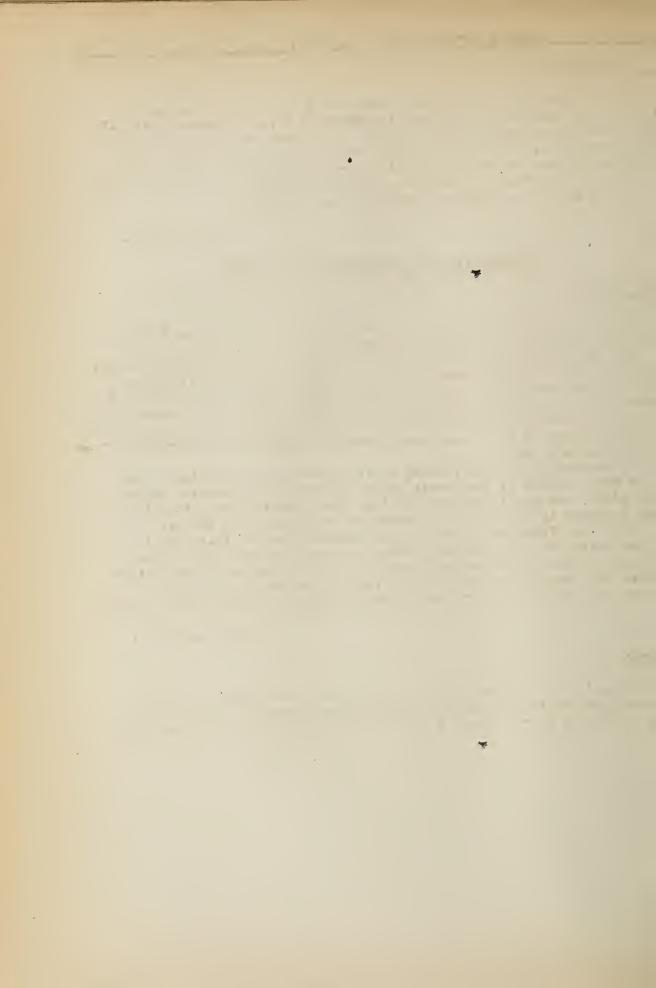
A demonstration on the pruning of fruit trees was conducted at the farm of Chas. Wilson by the county agent and the agriculturist. Apples, pears, plums, and small fruits do well on the project. More attention should be given to orchards as a source of profitable farm income.

Mr. George Valentine of the State Extension Service talked to the boys and girls at the Newell high school on club work and its merits. There are now over 100 members in the 13 organized clubs. Those that remain are well started on the work outlined by the State department and with supervision, a high percentage should complete the prescribed courses.

Frank E. Miller.

#### Newlands

During the week ending March 24 arrangements were made by Federal veterinarians for the second tuberculin testing compaign in this valley. The work will be started April 2 and it is expected that all of the herds



will be tested before July 1. It will be interesting to know what per cent of reactors are found with this test. Three years ago when the last test was conducted 8/10 of 1 per cent reactors were found.

Some time was devoted to preparing a working agreement for two dairymen, which provides for the joint handling of two large dairy herds on a large alfalfa ranch that has been previously devoted to the production of beef.

A number of inquiries have been received lately relative to the vaccination for black leg. This work has a very general application on the project, there being about 4,000 vaccinations made each spring. It has been the practice for this office to expedite this work.

Two articles were prepared for local papers during the week. One article consisted of 800 words urging the growing of corn and other grains for supplementing alfalfa hay. A second short article was prepared announcing more definite work to be taken up on the Fernley district of the project.

Additions to the Herd Testing Association have been coming in very encouragingly and it is hoped that at least 1,000 cows will be on test during March.

Forty-eight calls for assistance were received and five visits were made to farms.

L. E. Cline.

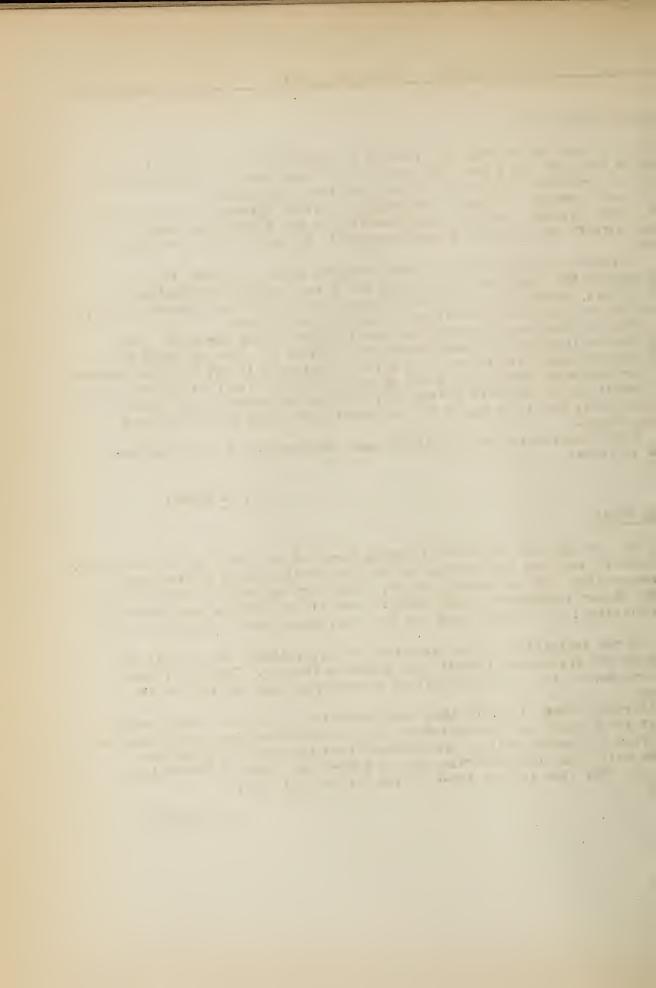
### North Platte

The greater part of the week ending March 24 was spent in pig club work. Preliminary work was done during the day and meetings held in the evening in cooperation with the county agents. Temporary organizations were formed at the Thomas schoolhouse and thenry. Some of the bankers were interviewed in regard to financing clubs and they expressed their willingness to do

At the invitation of the Lions Club at Scottsbluff, the subject of dairying was presented at their noon luncheon Tuesday. The bankers and business men of the town seem anxious to encourage more milking in the Valley.

Barton & Sons of Gering this week consented to put out among farmers one of their good pure-bred Holstein bulls on the same plan as the experiment farm is loaning bulls. Arrangements have been made to place the Barton bull among the ex-service men on homesteads south of Torrington, Wyoming. The club will be known as the Barton Bull Club.

D. H. Propps.



#### Minidoka

During the week ending March 24 the dairy business on the project continued to show increased activity. Steps looking toward the establishment of two more cheese factories on the project have been taken upIt is simply a question of whether there are enough lows in communities proposing to establish cheese factories. The factories at Rupert and Paul'are receiving about five thousand pounds of malk per day at present and the factory at Acequia a little less.

The price of cream at the cream stations has increased six cents

per pound since the cheese factories have begun operating.

The wide-spread advertising of the financial condition of the project has lead outsiders to believe that dairy cows could be bought on the Minidoka project for a "song". A recent survey of the project reveals that very few cows of quality are to be had. Some astute farmers have sold outside buyers part of their cows and replaced them with better ones.

Farmers are anxious to begin their spring work. Plowing has just

started in some neighborhoods.

The morale of the project is much improved over three months ago.

J. T. Montgomery.

#### Shoshone

During the week ending March 24, seven farm visits were made and 39 requests for information were received.

The larger part of the week was taken up with questions relative to boys' and girls' clubs, corn and bean culture and seed selection.

At the request of 20 farmers the agriculturist accompanied Mr. Fred Freiss of Powell to Billings, Montana to assist with the selection of a sufficient quantity of bean seed to supply those who wish to grow that crop and to locate a source of good wheat, barley and oat seed. An inquiry was made also into the wool marketing situation, especially as to the advisability of Shoshone growers trying to participate in a Montana pool.

A-visit was made to each of three sheep ranches from the owners of which were secured promises to help us save orphan lambs for use by the boys' and girls' clubs. Last year enough lambs were obtained with great difficulty and it ishoped that the arrangements made at this time will greatly reduce the time and labor required.

During the week one address was given, one article written, two milk sheets summarized, 16 milk samples tested, and two rotation plans

worked out for farmers.

G. A. Wright.



#### Uncompangre

A meeting was held in Delta on Monday of the week ending March 24 with Mr. Schafer of the State Extension Service and representatives of various communities of Delta County to assign Extension workers scheduled for that county to certain communities. There being no county agent or other representative of the Extension Office in Delta County has made it difficult for specialists to work in that county with the result that they have until recently rather passed it up. Local clubs, cooperating with this office have arranged to use all the specialists visiting this part of the state. Four ex-county agents who are farming in Delta County are helping materially to make the best use of the state workers.

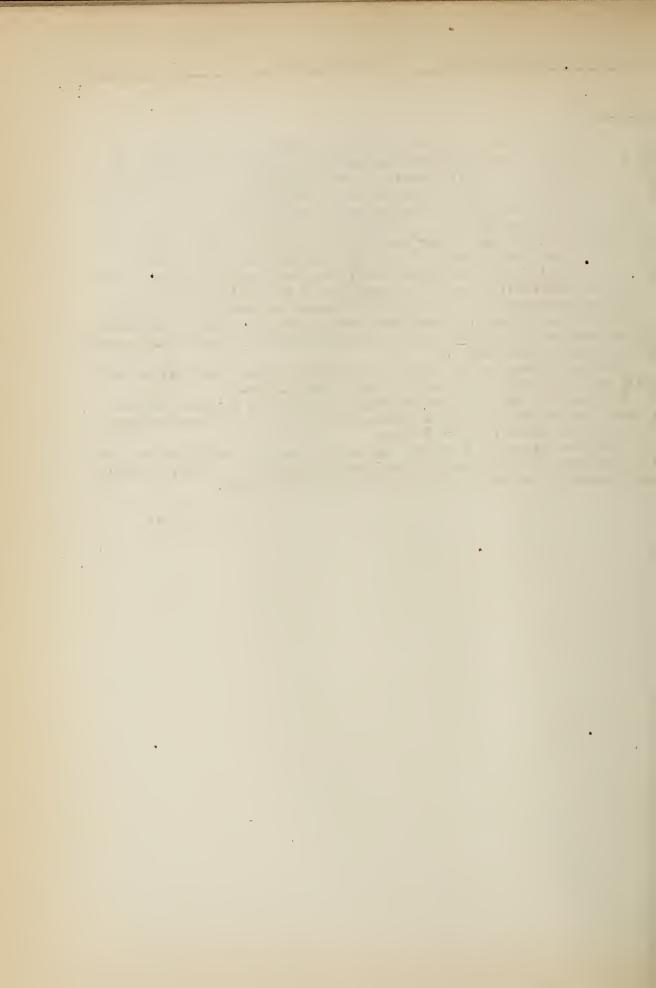
The annual get-together meeting of farmers and business men of Delta was attended on Thursday. There were probably 700 present at the luncheon and program. A meeting of the Mt. View community club was also attended and lantern slides shown.

Milk tests were run for 8 men. Two flocks of hens were called and visits made to advise with owners of two other flocks.

Mr. Stafford who is taking training in the U. S. Veterans' Bureau has been located on a farm near Olathe, this office having passed upon his project at the request of the Bureau.

Tentative plans for a dairy tour and program were made with the livestock committee of the County Agricultural Council, W. H. Olin, Agricultural Supervisor of the D & R. G. W. Railroad and others.

H. A. Ireland.



#### WEEKLY REPORTS

Of the Offices of

### WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

March 31, 1923.

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## Western Irrigation Agriculture

#### Scottsbluff

The average maximum temperature for the week ending March 31 was 52 degrees with a maximum of 64 on the 28th; the minimum average was 22 with a minimum of 19 on the 25th and 30th. There was a decrease in wind movement, the average daily movement being 230.4 miles or an average hourly velocity of 9.6 miles.

There is still some frost in the ground, but in many places farmers

are beginning plowing.

The work on the farm has consisted in hauling in the beet tops from the various plats, the tops being fed to the dairy cows; and hauling manure to the pastures in Fields B and C.

The farmers and beet-growers of the valley were called in a general meeting at Scottsbluff by the executive board of the Beet Growers Association in order to discuss the acceptance of the Sugar Company's offer. It was decided, overwhelmingly, to refuse the offer. However, at a meeting held on March 28th, the directors of the Beet Growers Association decided to accept the offer and released the signers. This was decided after the Sugar Company had agreed to recognize the association and have its contracts bear the stamped approval of the association.

James A. Holden

# Demonstrations on Reclamation Projects

#### Belle Fourche

The price of butterfat remained at 45 cents per pound during the week ending March 31 at the cream stations over the project. This is a good price for this time of the year and very encouraging to dairymen.

Mr. P. J. Scarbro of Brookings, S. D., the State leader of all boys' and girls' clubs, paid the project a visit early in the week. Plans were



# Belle Fourche (continued)

aiscussed and a complete program outlined for the summer camp to be held at the experiment farm. The local leaders will be assisted by three extension specialists. With 75 eager youngsters and the hearty support of the farm superintendent a very interesting and instructive week is assured by all those attending this year's summer camp.

Mr. A. L. Haynes, of the South Dakota Duroc Association, conducted a registered sale of the red hogs in Newell on Saturday. Many choice individuals were brought to the project from prominent breeders all over the state. Prices ranged from \$45 to \$180 with an average around \$70. For the next 30 days the State association will have two men in the field trying to place breeding stock of the right type on every farm. The business men of Newell encouraged this good work by giving a banquet in the evening at which time the visitors and the breeders dined upon a roasted Duroc and talked Durocs to their hearts content.

Twenty farm calls were made during the week. Effective sanitary precautions willingly carried out by the feeder-pig raisers have nearly stamped out the sore-mouth or necrosis among young pigs. This disease threatened to cause heavy losses in old pens where the germs persisted with cleaned out with boiling water and lye followed by a thorough spraying with some good disenfectant.

Two visitors interested in the State wool pool are working the project for signers to their contract. This orderly method of marketing wool is favorably received and those growers not forced to sell for cash at shearing time will undoubtedly find it to their advantage to pool their clips.

Frank E. Miller

#### North Platte

During the week ending March 31 three pig club meetings were held and permanent organizations were formed at the Thomas and Sunflower schools. The county agents in Morrill and Goshen counties are looking after the pig clubs in their counties. Conferences were held with them this week in regard to the work.

In cooperation with County Agent Sheldon a schedule of community farm bureau meetings was arranged for the next few weeks. Livestock work will be presented at as many of these schoolhouse meetings as time will permit.



# North Platte (continued)

Sick hogs were reported on a Russian's farm near Minatare. Examination showed cholera in an acute form. Dead hogs were burned and the well members of the herd were vaccinated.

At the request of the Rotary Club of Scottsbluff, dairying was presented in a short discussion at their noon luncheon on Wednesday. The Lions and the Rotary Clubs of the city are planning on inviting representatives from each town and community in the Valley to attend a mass meeting in the Bluffs sometime the first part of April for the purpose of further considering means of encouraging more dairying in the Valley.

D. H. Propps.

#### Shoshone

Together with several project wool growers a meeting to consider a Park County wool pool under the auspices of the National Wool and Warehouse Company was attended during the week ending March 31. Too few were in attendance to accomplish much, but an agent of the Company will spend some time in the near future on the project in the hope that a project pool may be formed.

In accordance with arrangements previously made respecting the joint pooling of beans, turkeys and alfalfa and sweet clover seed by Big Horn and Park County Farm members, Mr. Irwin, Manager of the Association spent several days getting contracts with growers in Park County signed up. No difficulty is being experienced in selling by contract at 5 cents per pound all the beans likely to be produced in the two counties.

The names of those applying for Burlington seed corn were assembled and mailed to Mr. Ford, Agriculturist. It is apparent that about 200 persons living on the project will enter the contest. The calls for information about corn and bean culture, and marketing plans were very numerous. In addition to other miscellaneous live stock work some time was spent fully acquainting Mr. C. G. Anderson with the plan by which farmers secure the use of government owned dairy sires.

G. A. Wright.

### Uncompangre ·

Practically all of the week ending March 31 was spent with Mr. King on dairy extension and improvement work around Nucla where interest in dairying has recently become very strong. A creamery has been in operation in Nucla for about a year and while it has had some difficulty



# Uncompangre (continued)

from poor cream and poor management it is in fairly good condition now and the directors are enthusiastic over the prospects. This creamery is associated with the Montrose creamery and others in pooling their surplus butter.

At meetings in Nucla and Redvale better handling of cream was discussed by State Dairy Inspector, L. K. Crowe and the improvement of dairy stock through better sires was stressed. R. L. Loesch of Loesch Brothers Holstein breeders of Montrose district attended these meetings and discussed tuberculosis control, etc.

Visits were made to farms of eight men to interest them in better bulls, better feeding or culling their herds. The meetings were all well attended.

H. A. Ireland.



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Vol XXII

April 7, 1923

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## Western Irrigation Agriculture

## Belle Fourche

Under date of April 15, Mr. Aune reports as follows concerning

conditions on the project:

"The last half of the winter months was open with only light precipitation. One high wind in February caused considerable blowing of soil in Series 1, Field A, and also in Field O on the Experiment Farm. In some instances the irrigation ditches were filled level full.

"The precipitation for January was .22, for February .23, and for March .32, this being lower than the average for the last fifteen

years.

"The temperature for March was not extreme but cold enough so that no field work could be done. The maximum for the week ending April 7 was 63 degrees, minimum 3 degrees below zero, and precipitation .5 inches.

"The first part of the week the plowed and cultivated plats in Field A were double disked and the plowed and cultivated plats in

Field B were gone over with the spring tooth harrow.

"On Friday we had a snow storm and about six inches of snow fell on the level. On the night of the 7th the temperature went down to 3 degrees below zero, which is the lowest temperature on record for April for the fifteen years that records have been kept. Due to the snow storm field work will probably be delayed another week.

"Farm labor in this locality is rather scarce. Farmers are

paying from \$40 to \$50 and board.

Beyer Aune

## San Antonio

During the two weeks ending April 7 the meteorological data recorded at the station were as follows: maximum temperature 87, minimum 45, greatest daily range 35, and precipitation 2.75 inches. Three days were clear, three partly cloudy and eight were cloudy.



# San Antonio (continued)

Vegetation has been rather slow in recovering from the freeze of March 19 and some trees which had started to leaf out at that time are only beginning to show signs of renewed growth at this time.

The stand of dwarf milo resulting from a planting made March 10 was so light that that crop was replanted on the rotation and tillage

plats April 6.

For the purpose of studying the effects, if any, of using sulphur as a possible means of controlling cotton root-rot, a strip along the south side of field ABS, sufficient for ten rows of cotton 850 feet long, was divided into six sections. Sulphur was disked into three of these plats at rates of 800, 400, and 300 pounds per acre, respectively.

Work during the period has included aligning and setting plat stakes, preparing cotton land for planting, repairing the barn, hauling gravel to resurface the farmstead roads, and general weeding of road-

ways and alleyways.

The Secretary of Agriculture, accompanied by his Administrative Assistant spent a short time inspecting the station March 26. A small group of local people, directly interested in agriculture, accompanied the Secretary on his tour of inspection which also included four other local offices of the Department. Mr. C. S. Scofield spent April 2 and 3 visiting the station.

Geo. T. Ratliffe.

## Scottsbluff

The average maximum temperature for the week ending April 7 was 52, with a maximum of 70 on the 1st; the average minimum was 26, with

a minimum of 22 on the 6th.

The weather has been favorable for the prosecution of all farm work. All of the plats in Field K, except the alfalfa and sweet clover and the fall seeded ones, have been harrowed with the spring tooth harrow, as well as the corn and beet plats in Fields A, B, and C. Some plowing has been done in parts of Field E which was not seeded to sweet clover last year.

Wednesday was the annual Lamb Feeders Day at the farm. The attendance and interest shown was very satisfactory. In addition to the usual program centering around lamb feeding, Mr. Propps gave an interesting dairy exhibit and demonstration during the afternoon. The Board of Directors of the North Platte Valley Water Users Association came out in the forenoon and were shown the lambs and the dairy herd.

Mr. Swenk of the Entomology Department of the State University, Mr. Brokaw of the Extension Service and Mr. Lockwood of Washington



## Scottsbluff (continuea)

were visitors during the week. Messrs. Swenk and Lockwood were conferring with the Superintendent relative to the program for grass-hopper eradication work during the coming summer.

The test lambs were shipped to Omaha on Friday.

Jámes A. Holden.

#### Yuma

The maximum temperature for the two week period ending April 7, was 89, minimum 39; greatest daily range 46. Considerable wind with very little growing weather has made the weather conditions during the last month very unfavorable for cotton planting. Much of the early April plantings have been replanted.

The first cutting of alfalfa hay on the project is now being harvested. Most of this will go to the Los Angeles market. Present prices are \$16.00 per ton baled on cars at Yuma.

Thirteen cars of citrus trees have been received in Yuma during the past two weeks. These are a part of a total order of forty carloads of trees to be planted on the Yuma mesa this spring. These are all balled trees of budded stock and have been fumigated in Los Angeles. About 35 per cent of this shipment is the Marsh Seedless variety of grapefruit. Forty thousand trees, or approximately 450 acres are to be planted this year.

Station work during the week consisted of plowing under winter legumes in the irrigated rotations; disking and cultivating date nurseries; constructing shade for citrus nursery; general irrigating, hoeing and cleaning up.

Dr. K. F. Kellerman, Messrs. O. F. Cook, L. G. Polhamus, H. G. McKeever and R. G. Martin were station visitors March 31 and April 1. Dr. Kellerman was here to meet Secretary Wallace and accompany him through the Coachella and Imperial Valleys in California. Secretary Wallace visited the station the forenoon of April 1.

E. G. Noble.

## Demonstrations on Reclamation Projects

# Belle Fourche

During the week ending April 7 three community meetings were attended. At the largest of these meetings nearly 150 were present.



## Belle Fourche (continued)

One of the vital questions brought up for discussion was the formation of a Project Boosters' Association. Each community elects representatives and these representatives are to meet and formulate a definite and practical plan of advertising to sell the surplus land and to induce settlers of the right type to come to this favored project.

Thirteen farm calls were made and two demonstrations were given during the week. The last two days were stormy and with enough snow

to block most of the roads.

Frank E. Miller.

#### North Platte

During the week ending April 7, three pig club meetings were held and two permanent organizations were formed.

The water users association and local officers of the Reclamation Service are holding schoolhouse meetings throughout the Valley relative to the relief measure recently passed by Congress. At the request of Mr. Weiss, Project Manager, these meetings are being attended and live stock discussed. Two such meetings were attended this week.

Wednesday of this week was annual lamb feeders' day at the Experiment Farm. A dairy exhibit and demonstration was given in the afternoon in connection with the regular program.

D. H. Propps.

### Shoshone

During the week ending April 7, four farm visits were made and

51 requests for assistance received.

Office visitors were numerous, bean culture, corn culture, and live stock feeding being the subjects about which information was desired. Mr. Deaner, a farmer, living near Deaver, requested full information about the plan being followed by the Huntley Station when Government owned bulls are used by dairymen. Mr. Anderson of Garland, has requested information as to when one of the bulls will be available.



## Shoshone (continued)

Astalk on "Crop Rotations" adapted to the keeping of live stock was given at a Farm Bureau meeting at Francie. The membership of this organization consists of ex-service men who filed at the last opening. Most of them have been off their units during the winter and not all have returned as yet.

Accarload of South Dakota grown alfalfa seed ordered by the Park County Farm Bureau arrived on Tuesday and was distributed during the

week. The seed cost growers  $20-\frac{1}{2}$  cents per pound at Powell.

Some time was used locating good pigs which may be used in Club work. Pure bred animals of good quality are more numerous this year on the project than they were last and will be obtainable at a comparatively low price.

Twenty-four samples of milk were tested and one man was assisted in adjusting his cream separator by testing skimmed milk repeatedly. The price of butter fat at Powell on the 7th was 39 cents per lb.

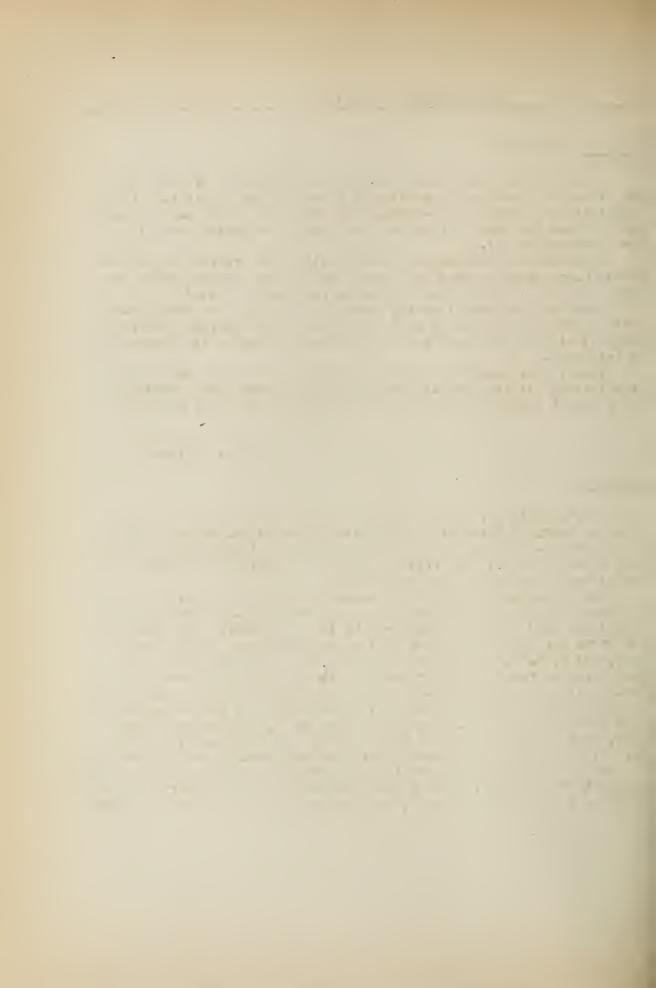
G. A. Wright.

#### Uncompangre

Arrangements were made during the week ending April 7 to meet with the Board of Directors of the Water Users' Association in regard to project No. 1, relating to the maintenance of farm families from home grown products. The Project Manager is interested in this question and wishes to assist in any way possible.

Two purebred bulls have been transferred on the Project this week, at prices which are significant of local conditions. A three year old, registered bull whose dam made over 24 lbs. of butterfat in seven days, and whose sire's dam made over 25 lbs. in seven days and 840 lbs. in a year, all A. R. O. records, sold for \$40.00. A two-year-old by the same sire and from a cow that made 551 lbs. of fat as a three year old, semi-official, sold for \$50.00. Two half sisters of these bulls (by the same sire) sold at the National Holstein sale at St. Paul, 1920, as open heifers for \$1,000.and \$1,100 respectively, and six half sisters sold, as two year olds to the State Reformatory more recently for \$6,000.00. All of these animals were bred by Loesch Bros. of Montrose.

A visit was made with the Loesch Brothers to the farms of two other breeders of Holsteins. King Banks recently brought in a very good hard of about 40 head from Arkansas, and Clayton Brothers at Cedaredge have



# Uncompangre (continued)

bought a large herd formerly owned by Artt Brothers of Austin. This is all registered stock.

Two visits were made to schools to enroll club members. Two farmers' meetings were attended, at one of which club work was presented.

Several calls were made in connection with a dairy day program to be held on June 12 and a meeting of beef cattle-men to be held May 4.

H. A. Ireland.



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## Western Irrigation Agriculture

### Newlands

During the two week period ending April 14, Mr. Knight reports as follows:

"There has been quite a demand for shade trees this year. In fact the station could not supply all those who desired trees. The nursery on a portion of A2 has been relevelled and again planted to trees for distribution next spring. So far the plantings consist of the following:

100 box elders

100 soft maples

200 black locust

100 privet cuttings

200 or 300 Chinese and Carolina poplar cuttings.

The balance of the orchard has been thoroughly disced to remove the sprouting weeds. All the trees have received a spray of limesulphur and the trunks whitewashed.

Some further seeding of grain has been done. The plats F6 and F11, all of B5 and B6, and that portion of B7, 8, 9 and 10 not included in the vegetable garden have been seeded to barley. Plats H9, 10 and 11 have been seeded to cats. At present plats D5 and E7 and 8 are

being leveled and put in shape for beets.

There is quite a little interest being shown on pastures for dairy stock. Several of the dairymen are planning on planting some grass mixtures. As a result the grass pasture and plats at the station have been visited and inspected quite frequently of late. In order to insure that these pastures will be seeded right the station is loaning a team, drill and man to these farmers who are not too great a distance from the station. The man seeds the pasture and then rolls the ground. By choosing different localities on the project some valuable information should soon be obtained on the adaptability of grass pasture for this project.

During Mr. Cooley's three day visit, April 12 to 14 inclusive, the different phases of this pasturing proposition were talked over, It was decided to fence all of G and use the rye now growing there as pasture. Also four plats on G that are now in sweet clover will be similarly used. In this manner it will be possible to obtain a comparison of the carrying capacity of rye, sweet clover and grass pastures.

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## Neglands (continued)

The gardener has been kept busy transplanting cabbage and tomato plants. In all, some 4000 plants of each have been set out. The greater portion of these will be given out to the public a little later in the spring. Some 200 plants of each will be retained by the farm for variety tests.

It has been noticed that a comparison of the blossoming dates of some of the earlier fruits this year with that of last year show a decidedly earlier date. This varies from 10 to 20 days in some of the different varieties. Such earliness is not a good indication of for fruit this year.

E. W. Knight

### San Antonio

The first three working days of the week ending April 14 were favorable for field work. More than an inch of rain fell the latter part of Wednesday night, which, followed by cool and cloudy weather, prevented field work the last half of the week. Meteorological data recorded were as follows: maximum temperature 85, minimum 51, greatest daily range 31, and precipitation 1.71 inches. Four days were clear and three cloudy.

All cotton plats in the rotation and tillage experiment fields were disked and harrowed April 9 and 10, and planting was completed on the 11th. It was not possible to make other cotton plantings due to heavy rainfall the night of April 11. The latter part of the week was spent in repair of buildings and general cleanup of buildings and equipment.

Geo. T. Ratliffe.

## Belle Fourche

Twenty-seven farm calls were made during the week ending April 14 and six calls for assistance were received.

The local veterinarian is cooperating with the State sanitary board to control sheep scab which has made an appearance in several sections. Plans are now in preparation to build a mammoth dipping tank on the dry land to drench the sheep after clipping.

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## Belle Fourche (continued)

Lip and leg ulceration in young lambs is present in three flocks on project farms. The disease in all cases is traced to unsanitary conditions which harbor the germs. Thorough cleaning up of the premises and the treatment of lambs has checked this disease.

Mr. E. Herkan of the National Wool Warehouse of Chicago spent several days on the project securing signers to the wool pooling contract.

Nearly all of the project has been canvassed for orders for dairy animals to be shipped from Wisconsin dairies soon. Over 40 dairymen have signed to have their animals tuberculin tested this summer. The state veterinarian is expected to make his second visit here this month in the interest of tuberculosis testing.

Frank E. Miller.

## Newlands

Some time during the week ending April 7 was devoted to assembling and assisting in the marketing of one car load of fat hogs. To expedite this cooperative shipment a trip was made to Reno, Nevada, in company with one of the shippers. Prime hogs in this shipment brought \$2.75 per hundred. With only a few exceptions this load of hogs all graded prime. Ninety five head of hogs were shipped and eight farmers participated. On Wednesday of this week assistance was rendered in arranging for the importation of a registered herd of Jersey cattle from Tulare, California. On Wednesday evening a farmers' meeting was attended in the Harman district at which fifty were in attendance. A talk was made along the line of the dependability of dairying for the Newlands project farmers as compared with other lines of farming that may be engaged in on the project.

On Saturday much of the time was spent in attending a meeting of the Nevada State Holstein Breeders' Association held on the Longheath Farm near Fallon. A very profitable meeting was held. Thirty eight members and a number of visitors were in attendance. Much enthusiasm was shown and the association took up a number of topics of much importance to dairying in the state.

Thirty two calls for assistance were received and visits made to six farms. One day was spent away from the project in the interest of cooperative marketing.

Considerable time during the week ending April 14 was devoted to cooperating with the Federal Veterinarians in the tuberculosis



## Newlands (continued)

eradication campaign, which is being conducted on the Newlands project at this time. Three years ago where the last test was made on dairy herds in the valley 8/10 of 1 per cent reactors were found. It was hoped that this second test would show the Newlands project to be a tuberculosis free area but because of the fact that about eight hundred dairy cattlehave been imported into the state from California during this interval and that on retest a number of these animals have reacted, it is very likely that our percentage of reactors will not be an improve ment over the former test. Very few of the old established herds in

the project are showing any reacting animals.

During the past week three articles were prepared for the local papers. One (an article of 800 words) was on the subject "Marketing Hogs on the Newlands Project". Included in this article was a brief account of cooperative marketing of hogs locally during the past eight years under the supervision of this office. A second article of 700 words was on the subject of the annual meeting of the Nevada State Holstein Breeders Association and its importance to dailying on the Newlands project. A third article of 600 words was prepared reporting the result of the March herd testing work. This article set forth the progress of the herd testing association and a summary of the results for March. The March report showed 930 cows on test producing an average of 738 pounds of milk and 26.73 nounds of butter fat per com. Allowing 1100 pounds of alfalfa hay per cow and charging the producers with an additional 16 per cent for hay eaten by dry cows the March herd record report shows that one pound of butterfat was produced for 44 pounds of hay and that with the average price of dairy products for March which was 47 cents for butterfat and allowing 30 cents per hundred for skim milk, the average dairy cow of the association returned \$24.69 per ton of hay consumed.

Mr. Cooley visited to the project Tuseday evening and spent the time until Friday night going over the plans for the new year and visiting farms on the project.

L. E. Cline.

## North Platte

Each evening of the week ending April 14 school house meetings were held in different parts of the project. The meetings were in charge of the water users association and the local officers of the Reclamation Service. Crop rotation and live stock were discussed. The questionairre to be filled out by settlers who desire to take advantage of the relief measure were also explained by the project manager.

One day was spent in Goshen county, Wyoming, with county agent Morse lining up pigs for pig clubs and planning a meeting of the exservice men for the purpose of completing arrangements for the lease of a pure bred Holstein bull. The proposition of shipping in a car-



## North Platte (continued)

load of cows for the ex-service men will also be taken up at the meeting.

A conference was also held with some of the bankers and business men of Scottsbluff in regard to a mass meeting which they propose to hold in the near future for the purpose of starting a campaign in the Valley to increase interest in dairying.

Visits were made to five different farms in response to requests for assistance with live stock problems.

A pig club was organized at Henry with a membership of 14 boys and girls.

D. H. Propps.

#### Shoshone

During the week ending April 14, twelve farm visits were made and 43 requests for assistance were received.

One half day was spent assisting a farmer who had just moved to the project, locate dairy cows. Among those offered for sale only two were found which were considered good enough to buy.

Two farmers from Mantua called at the Office and requested a monthly testing of their milk cows. They agreed to weigh the milk daily. One of these men has recently bought several cows and expects to build a good herd by elimination and breeding: For the first time the Mantua section will grow beets.

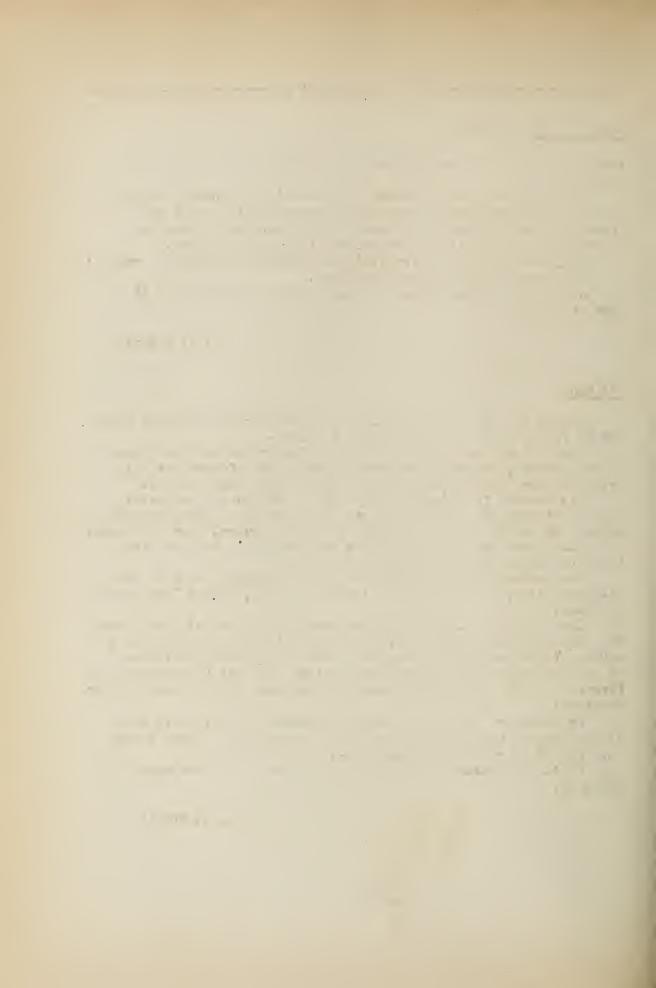
Conferences with and visits to pig club members took up considerable time, and one trip to Johnson's sheep, to get "bum lambs" was made.

The "hairless pig" trouble has occurred on several farms, and the idea had somehow become prevalent that feeding potatoes was the cause. Veterinarians and druggists were supplied with bulletins by this office and it is hoped that before the next farrowing season farmers will be well informed about the disease and the preventative treatment.

At a meeting of the Park County Executive Committee at Cody, it was decided not to attempt to form a county pool. This leaves the project to market its clip alone.

Field work became possible on most farms by the the middle of the week.

G. A. Wright.



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### Western Irrigation Agriculture

#### Huntley

The maximum temperature for the week ending April 21 was 80, minimum 28, and precipitation .16 inch.

Weather conditions were favorable for field work during the week and good progress was made in preparing land for seeding. On the lighter soils of the Project much of the seeding of beets and grains has been accomplished.

The beet acreage on the Project has been increased over that of 1922 and will amount to about 4500 acres. In the entire Billings factory district about 20,000 acres of beets have been contracted for. This is an increase of nearly 100 per cent over last season.

There appears to be a slight hold-over of hay on the project and the price has dropped to \$5.00 per ton from \$9.00 at the beginning of the season.

## Irrigated Rotations

Spring work on the rotations was started April 16. Plowing of the alfalfa plats not finished last fall was completed. Discing and harrowing of the wheat and beet plats consumed the balance of the week.

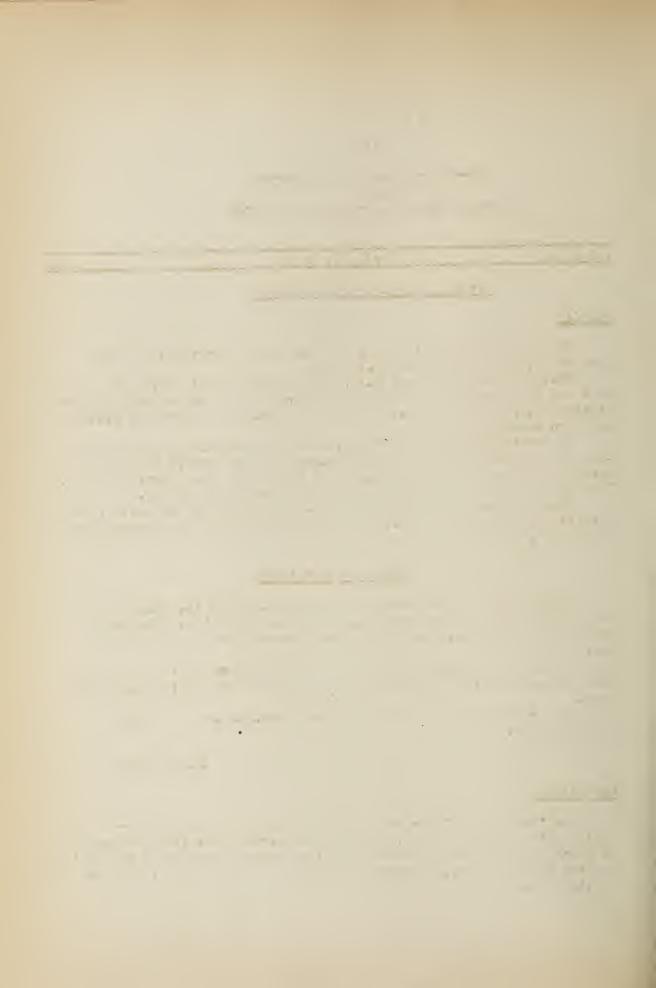
Tearing down fences around the hogged off corn plats and putting them around the alfalfa plats to be hogged off was started during the week.

The condition of the soil is quite favorable and is working up in fair shape.

Dan Hansen.

#### San Antonio

The first part of the week ending April 21 was too met for field work. Frequent showers and cloudy weather prevailed the greater portion of the week. The maximum temperature recorded at the station for the period was 84, minimum 50, greatest daily range 33, and precipitation .30 inch.



### San Antonio (continued)

Field work done consisted of thinning corn in the variety test, field C5; preparing land and planting cotton for the office of Crop Acclimatization and Adaptation Investigations on the Herbst tract, and fields D3 and D4; miscellaneous weeding of rotation and tillage experiment plats; and hauling gravel to resurface farmstead roads. The work of re-building the horse barn was continued.

Messrs. Guy S. Meloy, Investigator in Cotton Marketing of the office of Cotton Marketing Demonstrations and John D. Beers, Specialist in Cotton Classing of the same office, visited the station April 18. Mr. Merritt N. Pope, Agronomist in Barley Investigations of the office of Cereal Investigations visited the station April 19 for the purpose of inspecting the flax plantings being grown here for that office. On Saturday, April 21, Mr. O. B. Rollins, Assistant County Agricultural Agent for Bexar County, together with twenty-five members of his various "Boys' Clubs", spent six hours visiting the farm, studying the cropping systems used in the rotation and tillage experiments, judging corn and grain sorghums, and playing ball.

Geo. T. Ratliffe.

### Scottsbluff

The average maximum temperature for the two weeks period ending April 21 was 63, with a maximum of 82 on the 18th; the average minimum was 29, with a minimum of 20 on the 10th. On the 20th heavy winds blew out some of the seeding on the light soils. With the exception of this one day the wind movement has been normal.

The work of the Farm has been carried on without interruption. All of the beets and grain plats in Field K have been plowed, prepared and seeded, with the exception of the oats plats. The north plat in Field D and plats 3 and 4 in Field A have been seeded to alfalfa with barley as a nurse crop. Plat 1 in Field C has been plowed for corn; plat 2 and part of Field E has been seeded to sweet clover with barley as a nurse crop.

There has been considerable interest shown this year in the seeding of barley. The station has furnished more than 150 bushels in small lots to farmers who are trying it for the first time.

The Great Western Sugar company reports that there are over 50,000 acres of beets signed at this time, which is a very satisfactory showing. Quite an acreage has been planted.

During the past two weeks the Superintendent has been cooperating with the local Reclamation Service officials in bringing before the farmers the provisions of the Relief bill. Meetings were attended each evening and discussions and information relating to farming programs offerred.

The Superintendent left the last of the week for Denver for the purpose of purchasing steers to be used in pasture tests the coming

season.

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## SECULIARIES.

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#### Yuma

The maximum temperature for the two week period ending April 21 was 97, minimum 41; greatest daily range 45; and precipitation .13 inch. The rainfall recorded was in the form of two light showers, .06 of an inch on April 11 and .07 on April 18. In each case the rain was preceded by severe vind and dust storms.

Practically all the cotton on the project has now been planted. Those fields which came through to a good stand from early plantings will be thinned this coming week. Harvesting the first cutting of alfalfa hay continued through the week. Prices are holding at {14.00 to \$16.00 per ton baled f.o.b. cars at shipping points on the project.

Station work performed curing the past two weeks included the harvesting of alfalfa, cultivating cotton in the rotations, harvesting first cutting of Berseem clover, planting the cooperative series of cotton varieties and a progeny block of Tuxtla cotton; fencing alfalfa plats in the rotations for hog pastures; constructing nursery shades, general irrigating and cultivating.

Messrs. C. S. Scofield and J. F. Breazeale visited the project and the station from April 12 to 15. Messrs. O. F. Cook, J. S. Townsend and R. D. Martin of the office of Crops Acclimatization were

station visitors April 17.

Edward G. Noble.

# Demonstrations on Reclamation Projects

## Belle Fourche

Nearly the entire week ending April 21 was spent on the road investigating sheep scab. The first three days were spent with Dr. Dunn, a local veterinarian, working under State authority. Enough scab was found to warrant requesting aid from federal authorities and consequently Dr. E. E. Flory was sent to the project. The last three days were used in going over the field with the government veterinarian. Some 4600 sheep have scab. Close quarantine with federal supervision in dipping fill stamp out the parasites.

It is reported that close to 85 per cent of the hogs in some of the eastern parts of the State have mange. Recent importations of purebred hogs from infected areas have brought the mange in registered hards. These mites have already caused serious losses in several cases due to stunted feeder-pigs and unthrifty condition of hogs being fitted for the market. Concerted action with crude oil dirps at a week's interval must be carried on to protect this vital

incustry on the project.

Frank E. Miller.

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## Minid oka

The agriculturist had an opportunity for conference with Mr. Cooley Monday of the week ending April 14 on the general plan of work

for the project.

Dairymen on the project are not quite satisfied that they have found the best variety of corn to plant for ensilage. The Flint varieties do well for feed and some of the Dents, but the yield per acre is too low. Some variety tests will be carried on to find, if possible, a more suitable ensilage corn. These tests will be made on the project and neighboring dry farms.

A great deal of time of the agriculturist is spent trying to straighten out pedigrees of animals that have changed hands a great many times and were not registered or else transfers have not been

properly made.

Furing the week ending April 21 a survey of the project and a study of conditions in regard to the use of dairy bulls revealed the fact that the better bulls are not retained on the project long enough. A number of excellent animals have been lost lost to the project before they had time to demonstrate their dairy value. A survey shows that there are a number of dairy bulls of outstanding merit on the project and the present plans of the agriculturist look toward the retention of these animals by means of a Bull Association and exchange of animals from one community to another.

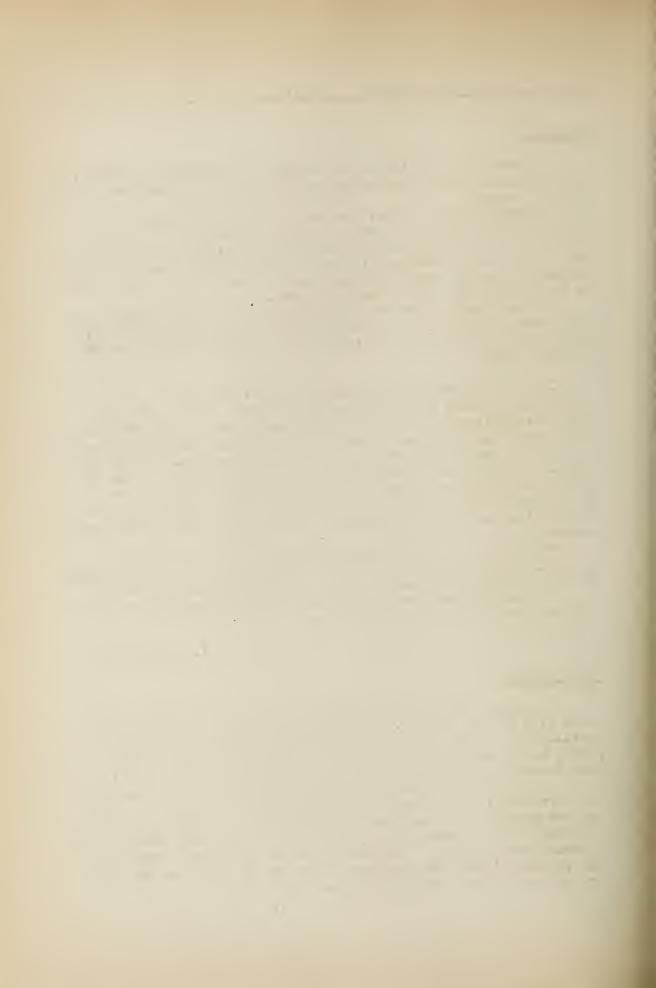
Plans are made for a Holstein Friesian tour and field day in July, including visits to three of the best herds on the project and discussion of breeding, culling and feeding Holstein cattle.

The wool growers have elected officers for the 1923 pocland will receive wool at Paul on May 25.

J. T. Montgomery.

# North Platte

The entire week anding April 21 was spent in the field. The first part of the week Mr. D. J. Robertson, dairy and livestock specialist for Wyoming, was in Goshen county and at the request of County Agent Morse, a trip was made to Torrington to meet Mr. Robertson. In company with Mr. Morse and Mr. Robertson a meeting of ex-service men previously scheduled at Veteran was attended and the agreement for the loan of a Holstein bull was signed by some of the men present. The agreement was left with the men for further signatures and as soon as it is returned to the office the bull will be ready for delivery. This bull is owned by Barton & Sons of Gering and is being loaned through this office on the same plan as bulls are put out by the experiment farm.



# North Platte (continued)

The greater part of the week was spent finishing up the organization of boys' and girls' clubs and lining up pigs for the members. A temporary organization for a calf club was formed at Mitchell.

A great many farmers in the Valley are having trouble with mange in hogs. One of the worst cases was taken over this week and treated in the way of a demonstration. Treatments will be continued till the herd is clean.

D. H. Propps

### Shoshone

Field work during the week ending April 21 was largely in relation to lamb and pig clubs. Three trips were made to the Lewissheep Camp at Penrose, four members being supplied with two lambs each. Three boys were assisted with the selection of pigs. One farmer living near Francie was given information and assistance with a rotation plan and several near Powell received information about rotations. Milk samples from two herds were tested. An article on "Cause and Treatment of Hairless Pigs" was prepared for local papers.

Requests for the formula used in treating seed potatoes were numerous. The Farm Bureau has purchased enough corrosive sublimate to supply growers, thus relieving the agriculturist from any activity relating thereto.

The best estimate available places the sugar beet area, exclusive of the Mantua, Deaver and Francie Communities at 2300 acres for 1923. These communities will increase that by several hundred acres.

The transportation of cream from farms to creamery which was discontinued in the fall has been resumed by the Powell Creamery. This had doubled the quantity of butter fat received by the creamery and recuced the quantity handled by cream stations to the same extent. Thirty-nice cents is the price of butter fat.

G. A. Wright.

# Uncompangre .

During the week ending April 14, three extension specialists from the agricultural college visited the office; Mr. Kidder, crops specialist the includes pastures and silage crops in his work, Mr. Freeman, assistant leader of boys! and girls! clubs, and Mr. Jamieson, poultry specialist. Office conferences were held with these men, one meeting, previously arranged was held with Mr. Jamieson, one farm visit made with Mr. Kidder, and visits made with Mr. Freeman to five club leaders. One school was visited on club work.

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## Uncompangre (continued)

In County Agent King's absence, one half day was spent in mixing redent poison, Mr. Freeman assisting. There is a strong demand for prairie dog poison at this time of the year. Mr. King has undertaken to keep a supply on hand and during his absence from the county the supply ran out. Control of prairie dogs will be a perennial problem in this locality on account of the great area of waste land surrounding the valley and interspersed among the farms. The best that can be hoped for is to prevent the further spread of the dogs and keep their numbers as low as possible.

Milk tests wererun for three men.

A meeting of the Board of Directors of the Water Users' Association was attended by previous arrangement and the situation regarding the home production of food on project farms was discussed. A committee was appointed to attend a dairy day program and tour on June 12 and 13 to take up this question. No other action was taken.

Two articles were written for local papers--one on pastures and on one on silage crops.

H. A. Ireland.



#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

April 28, 1923.

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## Western Irrigation Agriculture

### Huntley

The maximum temperature for the week ending April 28 was 80, minimum 24, and precipitation .50 inch.

Rains during the fore-part of the week were of benefit to winter grain and pastures, but delayed field tork.

Weather conditions were favorable for field work during the latter part of the week. Grain was seeded in the irrigated rotation fields and plats were prepared for seeding beets in this field and for grain on the dry land. Other station work consisted of repairing fences, cleaning up grounds and planting some trees and small fruits.

Winter wheat on lands adjacent to the project is in fair condition although much of it did not come up until this spring.

## Irrigated Rotations.

Rain during the first part of the week did not permit field work until April 27.

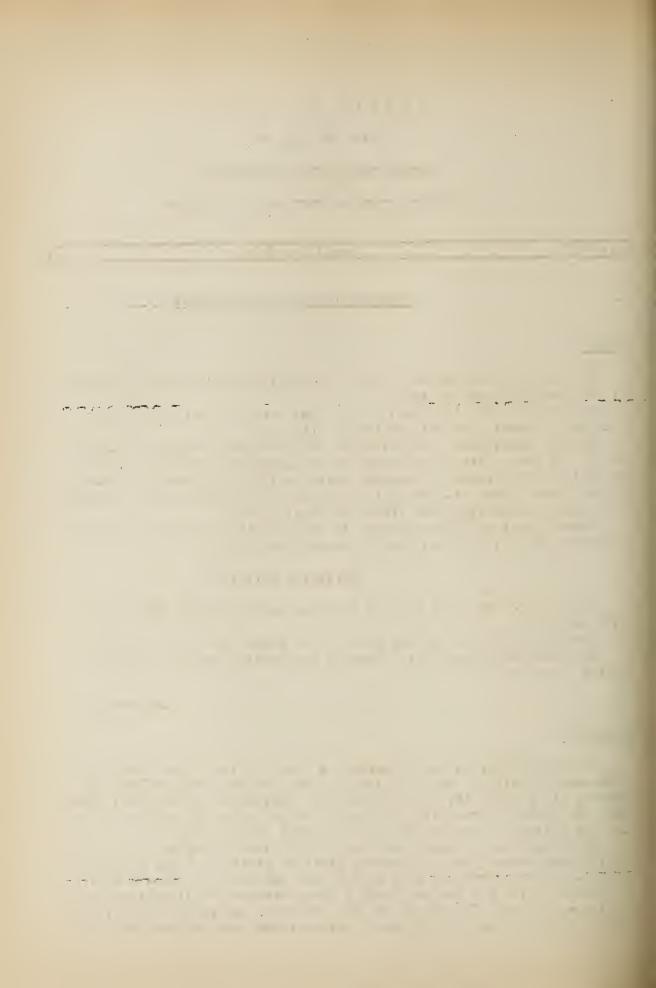
Fencing around the alfalfa plats to be hogged off was completed. Beet and wheat plats were harrowed and leveled and the wheat was planted April 28.

Dan Hansen.

## Newlands

The meteorological data recorded at this station during these two weeks ending April 28 were as follows: - mean maximum temperature, 65; maximum, 79 on the 16th; mean minimum, 34; minimum 26 on the 30th, rainfall, .32 inches on the 17th, .75 inches on the 18th, .06 inches on the 21st and a trace of snow on the 22nd, a total of 1.13 inches.

There has been a considerable amount of planting during this period. Alfalfa was planted into the growing grain on plats F8, F 12, D2, D6, H 3 and H 4. Sweet clover has been seeded into the grain on plats B 5, 6, 7, 8, 9 and 10; also C 7 and the field W lying between the irrigation ditch and the main road. The effect of alum was tried on this field last year. A strip twice as wide as the manure spreader had been applied through the



# Newlands (continued)

length of it. The beneficial results were so striking this spring that the eastern half was also treated. After being harrowed the whole of the field was planted to sweet clover. Beets on E 7, E 8 and D 5 were also planted.

It has been necessary to irrigate once. Those plats irrigated were B 5 to 22, inclusive; all of C excepting 1 and 9; D 3, 4, 5, 7 and 8; all of F excepting 5, 6, 8, 9, 11 and 12; all of G; all of H excepting 3, 4, 9, 10 and 11; and Y 1 to 13, inclusive.

As some data was desired relating to the carrying capacity of various pasture crops for dairy cows all of G and C 10, 11, 12 and 13 have been fenced. At present the rye pasture is sustaining the three station cows, or a live weight of 3255 pounds. It will, in all probability, be necessary to obtain some more animals to help pasture this crop. The station has succeeded in borrowing some of the neighbors' dairy stock to take care of the sweet clover pasture on C 10, 11, 12 and 13. These animals have not been turned in on these plats as yet, but will be turned in May 1.

The reclamation drain has been completed through the station grounds. The course pursued was west along the old drain (deepening it three feet below its former level) to the west fence, then north to the B series, then west again. A smaller drain was also put in, at Mr. Headley's request, connecting the small drain just south of the mess house with the larger drain.

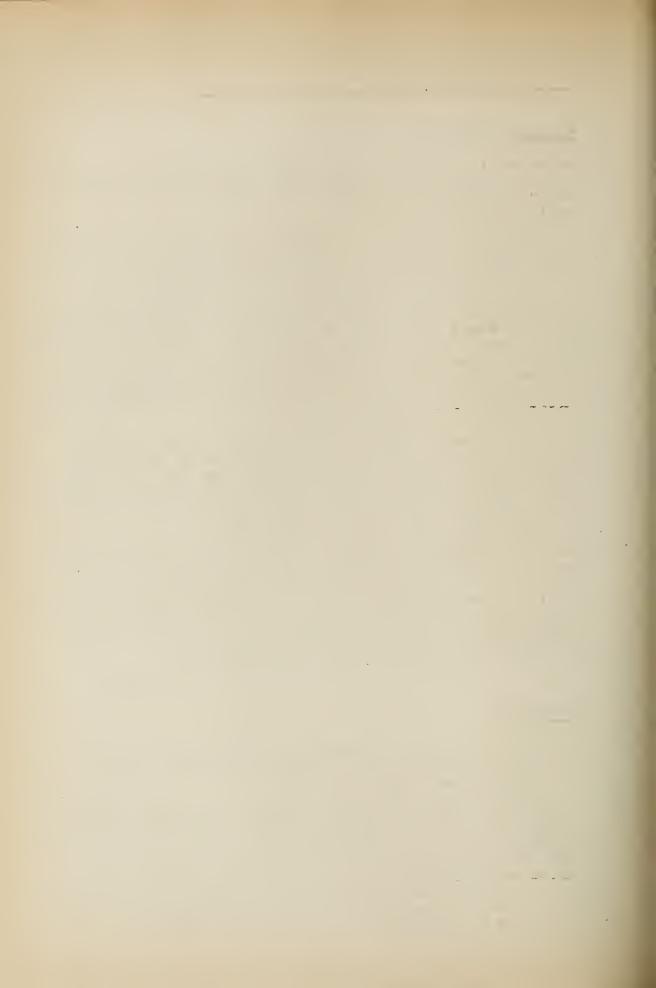
The visitors at the station during this period were: - Director Davis of the Reclamation Service, Mr. D. W. Davis, Assistant to the Secretary of the Interior, and Mr. Miles Cannon, Commissioner of Reclamation of the Interior Department. Mr. Headley spent the day April 28 about the project with Mr. J. S. Hicks, formerly head of the Wisconsin Potato Growers' Association. The object of the trip was to view methods of seed treatment, adaptation of soil to potatoes, and such kindred subjects dealing with potato culture.

E. W. Knight.

# Scottsbluff

The average maximum temperature for the week ending April 28 was 46, with a maximum of 57 on the 26th; the average minimum as 30, with a minimum of 21 on the 23rd.

The first rain of the season began April 21, which turned into a snow before morning, accompanied by high winds which continued throughout April 22 and a part of April 23. The measured precipitation was .45 inches, but was considerably greater than that amount. The high wind prevented the snow from entering the snow can and as the snow melted as fast as it fell no register of the depth of the snow could be obtained. It is believed that more than an inch of moisture fell, all of which entered the ground, there being no runoff. The latter part of the week there was another precipitation of .3 inch of rain.



# Scottsbluff (continued)

All of the oats plats in Field K were seeded during the week,

which concludes the small grain seeding.

Water has been turned into the main canal of the Interstate system and water will be delivered to the land as it is needed beginning next week.

James A Holden.

#### San Antonio

Cloudy weather and frequent showers interfered with field work during the week ending April 28. Meteorological data recorded for the period were as follows:- Maximum temperature 91, minimum 59, greatest daily range 32, and precipitation .64 inch. Three days were clear, one partly cloudy, and three cloudy.

Cotton plantings were made April 23 as follows: - two cultural tests on field C3; Kekchi breeding plat on the Herbst tract; and a combined boll-weevil and root-rot control test on field AB8. Corn on the rotation and tillage plats was thinned April 24 and 27; the row spacing test with corn on field C5 was thinned April 28.

Rhodes grass was badly damaged by the two severe freezes of the past vinter. The plats of this grass on fields B3 and B4 were clipped April 26 in an attempt to kill the dense weed growth. The percent of winter killing appears to be just as heavy on the plat on hich a growth of grass was left last fall as on the one which was moved late.

Dr. C. F. Cook and Mr. R. D. Martin of the Office of Crop Acclimatization and Adaptation Investigations visited the Farm April 24.

Geo. T. Ratliffe.

# Demonstrations on Reclamation Projects

# Bellefourche

During the week ending April 28, butterfat sold for 34 cents at the cream stations with indications that the price will continue at this figure for some time. Eggs bring  $16\frac{1}{2}$  cents on the local market.

Dr. E. E. Flory, a government veterinarian, sent to the project to stamp out sheep scab, finds scab evidence in only a few flocks. The veterinarian will remain on the project to see that the dipping is properly performed and the mites cleaned up before the sheep are turned on the summer ranges.

# Bellefourche (continued)

But very little wool has as yet been sold, the growers preferring to wait till shearing time. Recently many of the largest producers of wool have agreed to sell through the State pool. This wool will be shipped direct to the National Wool Warehouse in Chicago where it is cleaned and graded and sold by sample on the Boston market.

Frank E. Miller.

#### Minid oka

The principal part of the work during the veek ending April 28 was devoted to the placing of some dairy cattle and securing some Duroc boars for use in project herds. We are attempting to make somewhat of a photographic record of the experimental pigs.

No outbreaks of contagious diseases are reported on this project although we have word that there is an outbreak of cholera about seventy-five miles away.

Prices for cream are; - sweet, 34 cents; sour 31 cents; eggs 15 cents. The last payment for milk at the cheese factory was 47 cents.

Farmers in the neighborhood of Burley and Declo have guaranteed the cheese manufacturer the milk from enough cows to establish factories at Burley and Declo. These will be in operation June 1 or shortly thereafter.

J. T. Montgomery.

# North Platte

The first three days of the week ending April 28th was spent with the county agent in Morrill county helping him to get started with school house meetings and boys' and girls' clubs. Meetings were held evenings and farmers were visited during the day. Prospects are fairly good for the organization of two pig clubs in that county. Mr. Nelson, the county agent, is a new man there. The roads have been very bad all week on account of snow and rain that fell Sunday and Monday. The schedule for the week has followed out however with the exception of one evening meeting which had to be postponed.

The last three days of the week were spent with the pig and calf clubs in Scottsbluff county. Pig club members will start keeping records about the middle of May. About all of them are now supplied with pigs. The two calf clubs in the county are also ready to start keeping records.

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#### Uncompangre

Three trips were made away from the project during the week ending April 21. On Tuesday a trip was made to Grand Junction with County Agent King, to confer with County Agent McCann regarding Jersey bulls available for distribution under the free lease plan, the Mesas County Jersey show, etc. Saturday was spent at Pueblo in an effort to secure papers necessary to the registration and transfer of Holsteins purchased at Pueblo and shipped to Montrose more than two years ago. This stock has been sold several times and up to date it has been impossible to get signatures to papers required before transfers can be recorded and young stock registered.

The monthly meeting of the Delta County fair board was attended on Wednesday and recommendations made regarding Boys' & Girls' Clubs and livestock departments which were adopted by the board. The method of classifying club members and awarding premiums adopted is considered much more satisfactory than the ordinary method of awarding first, second, third, etc., premiums, and consists of selecting the one member in each club whose exhibit and general work ranks first, for champion of that club, and classifying all the other members into three equal groups according to grade, each member of the same group receiving the same award.

The Uncompander project is peculiarly unfortunate in the matter of noxious weeds. Perennial pepper grass has appeared in the past few years but is not widely scattered. Mr. May, who is carrying on investigational work in weed control for the state experiment station, was taken to see the owner of a piece of land badly infested with this weed, for the purpose of securing the land for experimental work. The owner, a Russian, refused to let Mr. May use the ground although it is practically worthless in its present condition.

H. A. Ireland.

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#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

May 5, 1923.

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# Western Irrigation Agriculture

#### Scottsbluff

The average maximum temperature for the week ending May 5 was 67, with a maximum of 74 on April 29 and 30; the average minimum was 37, with a minimum of 29 on May 4; the precipitation for the week amounted to .43 inches coming in two periods.

The alfalfa plats in Field K, in which potatoes will be planted, were plowed during the week, and the two flax plats were seeded. All of the beet and grain plats in Field K are up and give promise of a good stand.

The alfalfa plats in Field H are being fenced preparatory to beginning the pasture work with hogs. The sweet clover in Field E is being cross-fenced preparatory to starting the pasture work with steers. Two lots of 25 steers each will be placed in this field, one lot to be fed corn with sweet clover and the other lot sweet clover alone. Another lot of 25 will be run on native grass.

The stock will be turned on pastures during the coming week.

James A. Holden.

#### Umatilla

The maximum temperature during the month of April was 82. The The minimum 26 and the precipitation, 1.01 inches. Frosts occured several nights but were not severe enough to damage the fruit crops on the project.

Mr. Harry Humfeld, who has been appointed as assistant by the

Oregon station reported for work on the fourth.

The field work consisted in general work on the irrigation system and preparing the field for crops. The entire acreage was irrigated during the week of the 16th.

The demonstration work during the month included laying out irrigation systems for 48 acres and relocation of 550 feet of ditch.

G. H. Godfrey, of the Truck and Forage Disease office was on the project 6 days in connection with the nematode disease of alfalfa. Director Jardine joined in a conference on April 26 and 27 to decide steps to be taken towards eradication. A hearing will be held in Hermiston by the Oregon State Board of Horticulture on May 4 to definitely decide the matter. The disease has been found on approximately 50 acres this spring and if it is to be eradicated action must be taken immediately.

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# Demonstrations on Reclamation Projects

#### Newlands

Cooperative marketing required some attention during the week ending April 28. Eighteen farmers participated in a shipment of one car load of fat cows and veal. The cows brought from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  cents per pound, veal sold from 5 to 7 cents per pound at Reno. This shipment was supervised by this office.

The marketing of veal is becoming a side line to our local drive industry worthy of attention and considerable effort is being made to get the dairymen to properly fatten their calves, so that they will bring the top price on the market. The local mill is being encouraged to keep on hand a supply of calf meal, the formula for which is supplied by this office. The use of this grain supplement to skim milk is becoming quite general and is resulting in the production of much better veal.

During the past week assistance was rendered in placing four registered dairy bulls, three being Holsteins and one Jersey. The interest in registered Holstein bulls is very encouraging. The Newlands Project Herd Testing Association lacks very little of having 100 per cent registered bulls. By the end of this year there will no doubt, be no grade bulls in the association.

During the week one day was spent away from the project in the interest of cooperative marketing.

The major portion of the time during the week ending May 5 was devoted to work in connection with the dairy herd records compiled by the Newlands Project Herd Testing Association for April. The largest number of dairy herds on test during any month in the history of the project was made in April when seventy dairy herds including 1006cows were tested. The daily production of butter fat was practically the same as for March. There will be some additions to the testing association during May.

It is very gratifying to note the interest that is being shown in herd testing work among the dairymen and the importance placed upon association records when dairy cattle are for sale. During the week a number of parties desiring to buy cattle consulted association records in the office, and values for cows offered for sale were determined largely by production records made by the association.

There is a good demand for dairy cattle on the project and anyone offering good animals is sure of a ready sale. It would require about three carloads of cattle now to supply the demand of cash buyers.

L. E. Cline.

#### Belle Fourche

The first dipping of sheep at Fruitdale to eradicate sheep scab was completed during the week ending May 5, under the supervision of Dr. Flory, a government veterinarian. A second dipping, 10 days later, is necessary to get any of the mites that hatch out after the first dipping. This flock of sheep is the only one near the project affected. Some 1200 sheep under quarantine north of Newell on the dry will be dipped twice on the veterinarians next visit here.

Four community meetings took place during the past week. At these

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# Belle Fourche (continued)

meetings much interest was shown in community exhibits to be displayed at the county fair this fall. In nearly all communities a committee is actively engaged in seeing their community has a full display of all produce called for in the fair premium list. Prizes are large enough to encourage a good exhibit and with the rivalry shown competition will be keen.

On Arbor Day, Newell turned out in force to replant all park trees that died during the year. Citizens now realize the beauty and value of the park to the city and gladly put in a few hours in the morning or afternoon to keep the park in good condition. Lunch was served by the women of Newell. Under Mr. Aune's direction over 75 trees were set out.

Two boys' and girls' livestock club meetings were held on Saturday. At these meetings full discussion of the many perplexing questions aided the members in solving some of their problems. Farm tours taking in all the homes of the members of the various clubs has been arranged soon after school closes. There are now 14 active clubs with 110 members enrolled.

Frank E. Miller.

#### North Platte

Some time during the week ending May 5 was spent in the exchange of dairy stock, in locating bulls for farmers and in selecting calves for club members. One trip was made to Kimball county to see about Chester White pigs for pig club members.

Mr. M. B. Quivey, a Mitchell merchant, who owns an 800 acre ranch in Mitchell Valley where about 35 Shorthorns are milked and a grade Shorthorn bull is being used, requested that a visit be made to the ranch and suggestions offerred in regard to the dairy. The visit was made Thursday of this week. Mr. Quivey has decided to use a pure bred Holstein bull on his best cows and asked for assistance in making the selection. The rest of the cows in the herd will be disposed of and replaced by grade Holsteins.

The Dutch Flats Pig Club met at the Thomas school house Friday evening. The members all have their pigs located. They will be weighed on May 12 and

members will start keeping records the next day.

Mr. Morse, county agent of Goshen county, Wyoming, is leaving the county in about ten days and one day was spent with him. The livestock work in that county will be taken care of from this office for a short time until another county agent is employed.

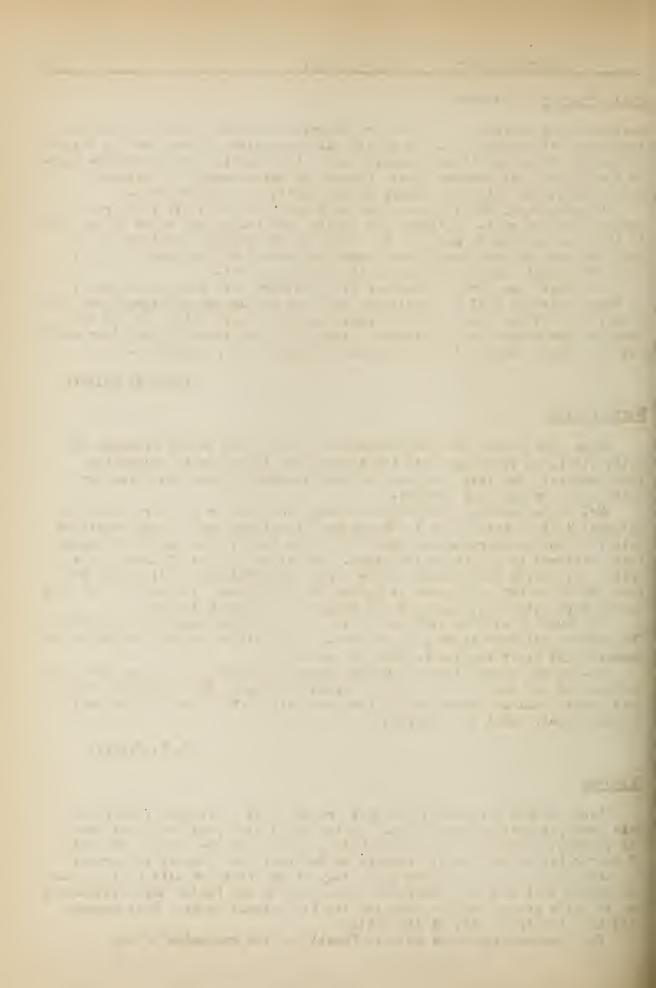
D. H. Propps.

# Shoshone

Fine weather throughout the week ending April 28 enabled farmers to make good progress in the fields. During the latter part some beet seed was planted. Alfalfa hay is being held at \$10.00 in the stack. The price of butter fat at the Powell Creamery on Saturday was 40 cents per pound.

About two days were given to a study of the roots of alfalfa in fields inoculated last year in comparison with roots in the fields never inoculated and in which production has been too low for several years. Soil samples will be taken from a few of the latter.

Two club meetings were held at Powell and the remainder of pig



# Shoshone (Continued)

club members supplied with animals. Also three boys were supplied with lambs. Twenty-one milk samples were tested and two milk sheets completed. Questions about dipping sheep, treating potatoes, removing like from hogs and sheep, and soil treatment used up the remainder of the week.

Miss Weis from the Wyoming Extension Office began a 4 day millinery and dress making school at Powell, April 25. She will conduct the same work at Deaver, May 1-4, inclusive.

Most of the week ending May 5 was given to matters preliminary to the formation of a sheep growers organization. A number of the more extensive growers were conferred with, and letters explaining the purpose of the meeting called for May 5 and requesting attendance were sent to all. Twenty men owning farm flocks responded and after two hours of discussion, steps were taken which it is hoped will culminate in an effective organization.

Due to many requests for information about sheep dipping procedure, a trip was made to Cody to secure information from county officials.

A millinery and dressmaking school was held at Deaver, May 1-4 inclusive, by Miss Weis of the Wyoming Extension Office.

G. A.. Wright.

# Uncompangre

The work of the week ending April 28 has been largely miscellaneous in character. One flock of hens was culled for a farmer who found it necessary to reduce his number. Milk tests were run for three men. One of these has not had testing done before but had been present at a meeting where lantern slides were shown and dairy records mentioned. He admitted that his cows were not as good as they ought to be and said he wanted to get a good bull as soon as he was able but that he wasn't quite ready to pay \$300 or \$400 for the kind of a bull he wanted. He had in mind sending to Idaho for a bull. When told that there were two herds of Holsteins which was what he wanted, in the Valley, as good as he would be likely to find in another state, one of them within a few miles of him, and that bulls from these herds could be bought for prices far less than he had mentioned he was surprised and asked that one of these breeders be given his name. His neighborhood needs more and better cows and a good bull placed there will be a start in this direction.

H. A. Ireland.

# - Miscellaneous -

# Dairying on the Newlands Project.

The report on the dairy herd testing work on the Newlands project for April shows that 1,006 cows in 70 herds produced during the month over 27,000 pounds of butterfat. At current prices the butterfat and

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# Dairying on the Newlands Project (continued)

skim-milk from these 70 herds was worth locally, nearly \$15,000 or something over \$200 per month per herd.

Assimilar report for March shows that 930 cows in 68 herds produced just a little short of 27,000 pounds of butterfat. At current prices for March the butterfat and skim-milk from the 68 herds was worth locally \$14,500 or \$217 per herd.

From these figures it would appear that some of the dairymen on the Newlands project are doing pretty well, in view of the fact that the cows are fed alfalfa hay almost exclusively so that there is no cash outlay for mill feed.

C. S. Scofield.

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DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

May 12, 1923.

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# Western Irrigation Agriculture

### Huntley

The maximum temperature for the week ending May 1 was 82, minimum 26, and precipitation .83 inch.

Weather conditions have been especially favorable during the planting season and spring seeding in all parts of the valley is well advanced.

The work at the experiment station consisted of preparing land and seeding outs and beets in the irrigated rotation field and in preparing land for potatoes and corn.

A rainfall of .79 inch occurred on May 10 and no field work was done during the remainder of the week.

Dan Hansen.

# Ne vlands

The meteorological data recorded at this station for the two week period ending May 12 were as follows:- mean maximum temperature, 70; maximum 96 on the 7th and 8th; mean minimum, 42; manimum 31 on the 2nd; rainfall 0.

There has been some planting during this period. On May 10th the rotation plats D1. E1, E2, F5 and F9 were planted to field corn. Plat H 13 was also planted to corn. This planting, however, was different varieties of corn.

A spray of lead arsenate is being applied to all pear trees and apple trees as fast as the blossoms fall. As some red spiders are still in evidence a little lime sulphur is being applied to each tank of arssnate spray.

F. B. Headley.

# Scottsbluff

The average maximum temperature for the week ending May 12 was 68; with a maximum of 76 on the 10th; the average minimum was 39, with a minimum of 32 on the 8th and 9th. The precipitation for the period was .3 inches.

# Scottsbluff (continued)

The work of fencing Field H for pasturing tests with hogs, and Field E for pasturing tests with steers was continued.

The alfalfa plats in Field K were seeded this week including the three fall-seeded plats, the stand on which was destroyed by grasshoppers. The corn plats were also seeded.

All the ditches have been cleaned preparatory to starting irrigation next week. The weather conditions have been very favorable for the starting of all crops and the stands of grain and beets all over the project so far seem to be very good. No hailstorms have been reported but very heavy rains occurred in the west end of the Valley the first of the week.

James A. Holden.

#### Umatilla

Corn and potatoes were planted in the rotation experiments during the two week period ending May 12. A test of certified potatoes and potatoes which did not pass the various inspections was started at the request of the Weston Mountain Potato Growers Association.

On May 5 the lysimeters which contain Butter Creek and Stanfield soils gave some percolate for the first time in 6 years-winter or summer. These lysimeters received 60 inches of irrigation water for each of the 5 years and 112 inches last year in an attempt to get water through them.

The State Board of Horticulture held a hearing on the alfalfa eelworm situation at Hermiston on May 4. The members of the Board heara both sides of the question and gave the positive injunction that if eradication was not undertaken at once that the Hermiston district alfalfa would be quarantined. Mr. Dean was made chairman of a committee to devise ways and means and to supervise eradication. On account of lateness of the season and danger of starting bad sand blows and the financial condition of some of the growers, it is very difficult problem but the committee believes that it can handle the situation and avoid quarantine. Director Jardine of the Oregon Station and Mr. Godfrey of the Forage Crop Disease office attended the hearing.

From present indications there will be a full crop of fruit this year as danger from frost is practically over.

The maximum temperature was 89, the minimum 30 and precipitation .09 inch.

H. K. Dean.

### Demonstrations on Reclamation Projects

#### Belle Fourche

Two days of the week ending May 12 were spent with county agent Ellison in visiting livestock club members and arranging for a program to be followed during school vacation this summer.

The wool growers are endeavoring to receive a good price for clips this year by combining in large pools fostered by local banks. The principal agreement is not to sell under 50 cents per pound. Mr. E. Horkan, a representative of the National Wool Warehouse & Storage Co. of Chicago, visited many wool growers urging them to ship direct to this cooperative organization and so practically eliminate the buyers with their profits. Mr. Horkan was successful in obtaining all the clips this company planned on getting from this territory and left the last of the week.

Butterfat now brings 35 cents per pound and eggs 17 cents per dozen.

Frank E. Miller.

### Minidoka

The principal matters of interest during the week ending May 12 have been promotion of project-wide tuberculin tests and casual visits to farms on dairy matters and sheep.

Retail price for cream is 31 cents and 34 cents for sour and sweet cream respectively.

The Cheese Factory will pay 47 cents on the 15th. Eggs are 16 cents cash; 18 cents and 20 cents in trade.

J. T. Montgomery.

# Newlands

A pig feeding demonstration was started during the week ending May 12 on one of the farms for the purpose of determining the rates of gain and profits about feed cost on seven hogs.

Interest in swine production has been very encouraging during the past two or three months. Several ranchers have called to discuss swine production on a rather extensive scale. In all of these cases the hogs will be raised in conjunction with the dairy business. It is the plan to devote the acreage not needed for growing hay for the cows to the production of pork. There has been considerable work done by this office since the first of the year to stimulate interest in swine production. Special emphasis has been made on the importance of growing grain for fattening purposes and of having the pigs farrowed in groups twice a year, so that they may be marketed advantageously.

The chief difficulty connected with the swine industry on the Newlands project is connected with marketing. It is a too common practice for the farmers to have their pigs farrowed any time of the year. Consequently they are prepared for market a few at a time throughout the year, no one or two ranchers having a sufficient number to make a car load. Therefore it is often necessary to hold finished hogs two or three weeks before a car load can be assembled for ship-

ment.

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#### North Platte

A great deal of time during the week ending May 12 was taken up with Boys' and Girls' club work. A temporary organization for a pig club was formed at Morrill with a membership of 12 boys. A preliminary meeting was held at Fairview school at which time report blanks were distributed and explained. Assistance was given to a number of members in selecting their pigs. Four boys in the Fairview club wanted Spotted Polands and it was necessary to go to Lingle, Wyoming to get them. Pigs were weighed in the Fairview and Dutch Flats clubs Saturday and members started keeping records. A permanent organization for a dairy calf club was formed at Mitchell with a membership of 8 boys. The boys all have their calves and will start keeping records as soon as supplies are received from the Extension Service at Lincoln.

In cooperation with County Agent Morse a dairy program was given Tuesday evening at the regular meeting of the Community club at Cottier, Wyoming. That part of the project is new and the settlers are starting in right away milking a few cows.

A pure bred Holstein bull loaned by Barton & Sons to the ex-service men on homesteads in the vicinity of Veteran, was delivered this week by truck. Eight of the ex-service men, with a total of 30 cows, signed the cooperative agreement with the Experiment Farm.

D. H. Propps.

# Shoshone

A sheep shearing outfit previously engaged by local growers arrived at Powell, Monday of the week ending May 12 and a committee appointed by the newly formed association called upon this office for assistance in working out a shearing schedule. It is expected that all flocks will be shorn by May 20.

Several trips to sheep camps were made, 16 lambs being obtained and distributed among club members. Record blanks were mailed to all Pig Club members and one was given assistance in selecting and financing. Mr. Lane, State Leader of County Agents, held a conference of local club leaders on Wednesday, at which questions pertaining to organising and instructing members were considered.

Mr. Dover who has been operating the Powell Creamery for 2 years, recently severed relations with it and Mr. Castberg, a creameryman from Western Montana has secured a lease from the Yellowstone Company. The plant will remain closed for a few weeks for cleaning and repairing. The outgoing management gathered up cream with trucks. Mr. Castberg will not do that, and he hopes the suspension of operations will facilitate the change.

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### Uncompangre

A trip was made to Grand Junction the first part of the week ending May 5 to meet Mr. Cooley and look over parts of the Grand Valley project with him. This project is being increased in size by the addition of a tract of 10,000 acres, known as Orchard Mesa, which is some of the best land in the valley. This has already been settled and put under cultivation, some of it being highly improved orchard land. A syphon which will furnish water for the tract is now under construction. Visits were made to the farms of Mr. Gimple and Mr. Twyman who have, respectively, one of the best herds of Jersey cattle and Poland China hogs in this part of the state. At Montrose Mr. Cooley was taken to see a herd of 600 Hereford yearlings fed on steamed potatoes and hay and a large herd of hogs fed principally on potatoes. In the first case it was estimated that it cost \$3.50 per ton to feed potatoes which were valued at from 1/3 to 1/2 the value of hay, which was bought for \$8.00 and \$8.50 per ton.

Mr. Jay, State Livestock Specialist and Mr. Cochel, Field Representative of the Shorthorn Breeders' Association, were in Montrose for a meeting of a few cattlemen to outline a plan for marketing feeders. Tentative plans were made for a sale of bulls and a feeder show in which the College of Agriculture and the Shorthorn Breeders Association will cooperate.

A club meeting was attended near Delta. One flock of hens was culled and milk tests run for one man.

H. A. Ireland.

F. L. Cooper, Agricultural Engineer with the State Extension office visited Montrose and Delta Counties during the week ending May 12 and two and a half days were spent with him in making some surveys for the installation of farm water systems. This is new work in the state and on the Uncompangre project where lack of stock water in winter is so serious a handicap to dairying and other livestock industries. Mr. Cooper can render valuable service. Water systems were planned for two farmers and farm plans furnished another.

Tuberculin testing of cattle has been attracting an unusual amount of attention the past week since a paragraph was run in the local paper calling attention to the fact that the new appropriation would be available July 1st. \$16,000.00 was given by the state for the biennum, an increase of \$8,000 over the appropriation of two years ago. Calls for information regarding the test have been frequent and several new applications have already signed up for the test.

Two Jersey cows were selected for a man near Montrose. These were good individuals, high, grade, two and four years old. The prices

paid were \$75,00 and \$90.00.

H. A. Ireland.

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#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

May 19. 1923. 20

### Western Irrigation Agriculture

#### Belle Fourche

During the week ending May 19 the maximum temperature was 73

degrees, minimum, 26; and precipitation .27 inches.

The spring has been cold and the precipitation considerably below normal. The total rainfall for April was .82 inch and in May, to date .70 inch. Fair stands of grain were secured on fall plowing but the stand of beets so far is rather poor. The corn was planted May 8 to 15. If the present dry weather continues the corn will probably have to be irrigated.

Water was turned into the canals on the 14th and alfalfa will be irrigated during the coming week. During the week the men have been employed in building hog fences and cleaning irrigation ditches, and

cleaning up around the place in general.

On Monday Dr. Buckley from the Bureau of Animal Industry vaccinated all the spring pigs for cholera, using the double treatment.

Beyer Aune.

# Huntley

The maximum temperature for the week ending May 19, was 73, minimum 28 and precipitation .18 inch.

Conditions were favorable for field work during the latter part of the week. Station work consisted of preparing land in the rotation fields for corn and potatoes and seeding corn.

The pasture season began on May 14 when cows were placed on pastures in field L-III in a test of the effect of top-dressing and also in field A-II in a maximum carrying capacity test.

The work of thinning beets on the project is under way. Due to weather conditions having been especially favorable this crop is much earlier than usual.

Dr. Buckley of the Bureau of Animal Industry visited the station on May 17.

Dan Hansen.

### Scottsbluff

The average maximum temperature for the week ending May 19 was 64, with a maximum of 77 on the 19th; the average minimum was 37, with a a minimum of 25 on the night of the 15th. The precipitation for the week amounted to 0.30 inch in two showers of .15 inch each.

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# Scottsbluff (continued)

The work of fencing the pasture plats was continued throughout the week, and the hogs and sheep were placed on pasture. One lot of 25 steers were placed on native pasture. These steers weighed 703 pounds at Denver when purchased three weeks ago and 757 pounds when placed on pasture.

The sweet clover pasture in Field E was irrigated during the week.

The corn plats in Field C were prepared and planted.

A killing frost occurred on the night of the 15th covering the entire valley. The loss to the beet crop was especially severe on the late plantings which were just coming up. The early planting which had been up for 10 days or more was not greatly injured. The field men for the Sugar Company report losses as high as 75 percent with a probable average of 40 per cent for the district. On the Experiment Farm, it is believed that the loss was not great enough to justify the replanting of any of the fields.

Mr. A. C. Cooley spent the last half of the week on the Project.

James A. Holden.

#### Yuma

The maximum temperature recorded during the four week period ending May 19th was 108 degrees, which occurred on May 10th; a minimum temperature of 39 for the period occurred on April 23rd. There was no precipitation recorded during the period. For a period of 8 days, extending from May 4th to May 11th, inclusive, the temperatures were unusually high for this time of the year; since that time both the day and night temperatures have been fairly moderate.

The condition of cotton on the project compared to normal is reported to be 105 percent. From all appearances a better stand has been secured. Plantings, as a rule, have extended later into the season

this year.

A price of \$16.00 per ton for baled alfalfa hay, on cars at Yuma, extended well into the month of May. This fair price for hay resulted in more alfalfa than usual being sold. This increase in the amount of hay shipped out will reduce the acreage devoted to alfalfaseed. The price for baled hay dropped to around \$14.00 about the midale of the month.

Station work performed during the past four weeks has included the thinning and cultivating of cotton in the rotations; harvesting of barley, wheat, and oats; the planting of cowpeas on disked grain stubble; plowing of grain stubble; general irrigating and hoeing.

Dean J. J. Thornburn, Professor R. S. Hawkins, of the Agronomy Department, University of Arizona, and Mr. Leslie Beattie, Superintendent

of the Yuma Date Garden were station visitors on May 12th.

E. G. Noble.

### Demonstrations on Reclamation Projects

# Belle Fourche

During the week ending May 19 numerous calls for assistance to aid in the checking of hog cholera were received. With the assistance

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# Belle Fourche (continued)

of a local veterinarian and extensive vaccination, this disease can be controlled.

Dr. Flory, a federal veterinarian, visited the project again to continue sheep scab investigation and do further tuberculin testing of dairy animals. With the exception of a large flock of sheep on the dry lands, the scab seems to be cleaned up. Tuberculin testing is now at a standstill as far as taking on new work is concerned due to lack of State funds.

With only a week or two more of school, club members are busy at their studies. With the close of school numerous tours and trips are planned for the summer.

Frank E. Miller.

#### North Platte

During the week ending May 19 the pigs were weighed and records started in the Sunflower and Henry pig clubs. The enrollment was completed at Morrill, the local leader selected and reports forwarded to the Extension service.

A 400-word article on "Mange in Hogs" was prepared for the local papers. A large percentage of the herds in the Valley are affected with the mange parasite.

Two days were spent making a trip to Dawes county to select a load of Holstein cows for Mr. Warner, manager of the Platte Valley Telephone Company. Mr. Warner has three farms in the Valley and is putting 15 cows on each of them.

Mr. Cooley spent the last half of the week on the project. Trips were made over the Dutch Flats, Spottedtail and Sheep Creek communities.

#### Shoshone

During the week ending May 19 three trips were made to sheep camps where lambing is going on, and eight visits to Club Members were made. Miscellaneous activities including the furnishing of information about the inoculation of beans and alfalfa seed and about corn and bean culture.

G. A. Wright.

# Uncompangre

A dairy meeting at the town of Crawford in Delta county was attended on Tuesday of the week ending May 19 with Judge J. C. Bell, an extensive land owner and dairyman of Montrose, and Mr. Brown, owner of the Montrose Creamery. Attendance was very good for the time of year. Marketing, feeding and breeding were discussed.

Milk tests were run for nine men. One flock of 175 hens was culled. Plans for a hog breeding crate were furnished one man. Mr. Sampson, a new dairyman near Montrose was advised regarding the registration of Holstein cows.

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# Uncompangre (continued)

Interest continues in tuberculin testing of dairy cows. Five men have requested application blanks this week and there have been other inquiries regarding the test.

H. A. Ireland.

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#### WEEKLY REPORTS

Of the Offices of

## WESTERN IRRIGATION AGRICULTURE And

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XXII

May 26, 1923.

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## Western Irrigation Agriculture

## Belle Fourche

During the week ending May 26 the maximum temperature was 88 degrees; minimum temperature 45 and precipitation .37 inch.

During the week potatoes were planted in the irrigated rotations, maximum production, and variety test. Before the potatoes were cut they were treated in a solution of corrosive sublimate. Twenty bushels of certified potatoes for seed were secured from Nebraska and planted as a seed plat for next years planting. In the variety tests, comparisons are also made between certified dry land seed and one, two, three, and four-year irrigated seed. Four different times-of-planting will be made, May 15, June 1, June 15 and July 1.

On May 14, one cow was turned into the sweet clover in rotation No. 37. This rotation was started last year and consists of corn for silage, barley seeded with white sweet clover, and sweet clover pasture one year. This cow bloated badly after the first day, and fell off in milk production from 30 to 15 pounds a day. It was impossible to keep this cow from breaking out, so at the end of the week she was taken out and turned on grass pasture.

The sheep were turned on alfalfa pasture in rotation No. 71, and hogs in rotations No. 65 and 69. The sheep were sheared during the week, the lightest clip being 10 pounds, the heaviest 18 pounds, and the average 13 pounds per head.

The rains of last week and the first of this week were sufficient to germinate the beets and corn on fall plowed land, but the corn in Field K, which was spring plowed, will most likely have to be irrigated.

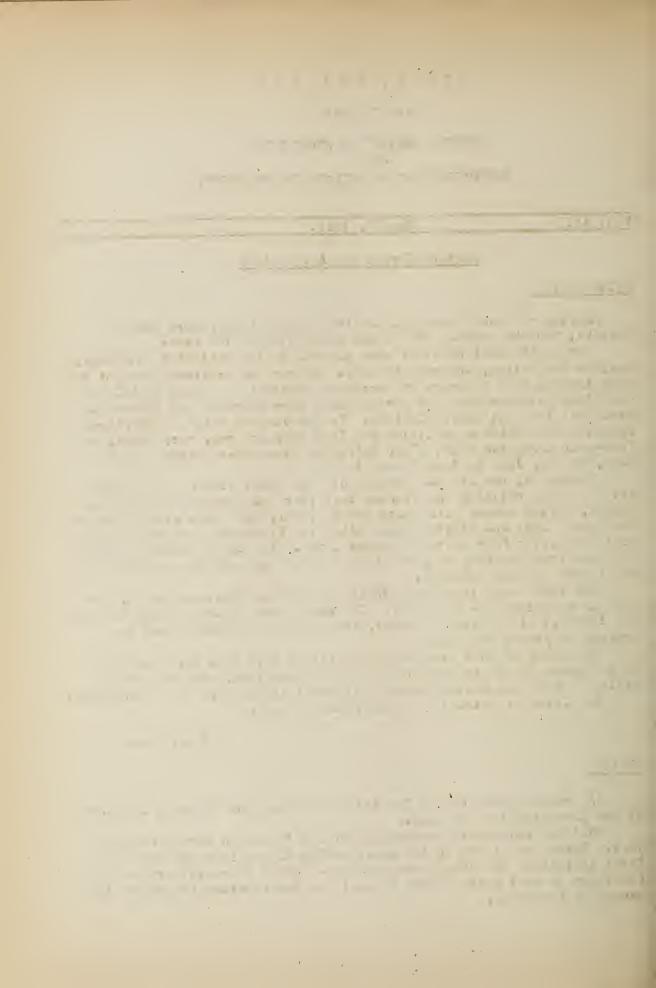
Mr. Cooley visited the station, May 20 to 24.

Beyer Aune.

## Huntley

The maximum temperature for the week ending May 26 was 87, minimum 41 and precipitation .26 inch.

Weather conditions continued favorable for field work during the week. Water was placed in the canal on May 22 and is being used for the first irrigation of alfalfa and pastures. Crops generally are in good condition on most parts of the project and the planting season has been unusually favorable.



## Huntley (continued)

Indications are that the grasshopper pest will become troublesome in most sections of the valley. As a result of the experience of former seasons there appears to be a more keen interest at this time among farmers in the application of control measures and it is probable that a more general effort at control will be made early in the season.

Mr. A. C. Cooley visited the station on May 26.

Dan Hansen.

## Scottsbluff

The average maximum temperature for the week ending May 26 was 67, with a maximum of 85 on the 26th; the average minimum was 46, with a minimum of 41 on the 24th.

The heaviest rain of the season came during this period. It commenced Monday morning and rained steadily through that day and night and all day Tuesday, the total precipitation amounting to 2.12 inches. A goodly acreage of the replanted beets were gotten in ahead of the rain.

The two lots of 25 steers each were turned on the sweet clover pastures this week. One lot received no other additional feed while the other receives shelled corn in addition to sweet clover. As a check on these two lots, another lot of 25 were turned on native grass pasture and will be run through the summer.

The work of the farm has been the routine work of completing the fencing of pastures, cleaning laterals and getting the irrigation under way. The irrigation of Field E was completed and the various clover and grass pastures were irrigated, as were the clover and alfalfa plats in Series IV and V in Field K.

According to advices from the Great Western Sugar Company, approximately 17,000 acres out of a total acreage of 52,000 of sugar beets had to be replanted on account of the frost on May 16th.

The following representatives of the Interior Department; Director Davis of the Reclamation Service, Commissioner of Reclamation Cannon and the Assistant to the Secretary, Mr. Davis, arrived on the project the 25th and held meetings at several points, all of which were well attended and at which the farmers were invited to state their needs and desires. An extension of time for repayments seemed to be the unanimous request.

James A. Holden.

## Yuma

The maximum temperature for the week ending May 26 was 103 degrees, minimum 48, greatest daily range 46, and precipitation 0.

The main activities on the project at the present time are harvesting of alfalfa hay, thinning and cultivating cotton. Hay prices for the week were around \$13 and \$14 per ton, on cars. A shortage of labor for thinning cotton is reported in some sections but the situation does not seem to be very acute.

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## Yuma (continued)

Federal officials in cooperation with the county agent of Yuma county, have been busy the last week in testing dairy cattle in the Yuma valley for tuberculosis. Between 3,000 and 4,000 head was the estimate given for dairy cattle in this district. Arrangements are also being made to have the same test given to dairy herds on the California side of the project.

The gauge reading of the Colorado river, at Yuam, on May 25 according to the U.S. Reclamation Service report, was 22 feet with an estimated discharge of 54,000 second-feet. The forecast for the period ending June 3rd estimates a gauge reading of 24 feet and a

discharge of 75,000 second-feet of water.

Station work performed during the week included harvesting the third cutting of alfalfa hay, plats D-32-38, inclusive; plowing grain stubble plats; cleaning and repairing irrigation ditches; planting summer legumes in variety test; harvesting winter vetch in the variety test, plats C-32-35; general irrigating, cultivating and hoeing.

Mr. George H. Godfrey, pathologist, U. S. Department of Agriculture, was a station and project visitor on May 24. Mr. Godfrey was making a survey of the project for indications of stem nematode infestation on alfalfa. No evidence of its presence was secured.

E. G. Noble.

## Demonstrations on Reclamation Projects

## Newlands

During the week ending May 19 representatives from the Insect Pest Control Service of California spent two days in the Fallon district inspecting the alfalfa fields for the presence of alfalfa weevil. No weevil was found in the Fallon district. The inspectors will spend several days in the Fernley district and also the territory up the Truckee river canyon above Fernley to determine how far down the canyon the alfalfa weevil has spread. The farmers of the Fernley district had considerable trouble warding off the quarantine against shipping hay into California last year, and the further warding off of this quarantine does not seem very hopeful this year. A very thorough inspection will be made of the Fernley district and the situation as regards quarantine will depend upon the findings of the inspectors.

Some time was spent in assisting in assembling a cooperative shipment of beef, veal, and hogs to Reno. The one carload shipment will have to be made up of the three classes of stock in order to get

on the market as promptly as possible.

Assistance was rendered four dairymen in the selection of registered bulls. Two animals were secured and two other purchases are pending. Two dairy herds were visited in company with prospective buyers. The demand for good dairy stock is strong. The present price of  $47\frac{1}{2}$  cents for butterfat at Fallon helps to make a very healthy sentiment for dairying in the project just now.

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## Newlands (continued)

On Tuesday of the week ending May 26 a cooperative shipment of hogs and veal was made to Reno. A trip was made in company with one of the farmers to assist in the marketing. While on this trip a visit was made to a large dairy herd near Reno, which is being offered for sale to the prospective buyer from Fallon, who accompanied me. The deal was not made at the time of the visit. The prospects are that if this trade does not go through, the entire herd will be brought to Fallon, where feed is more plentiful.

After a thorough survey of the Fernley and Wadsworth districts for the purpose of searching for the presence of alfalfa weevil, an infestation was located at Wadsworth, one mile from the nearest alfalfa field on the Fernley bench. Vigorous efforts are being made by the California alflafa producers to have a quarantine placed upon the alfalfa producing districts of Nevada this year. If this quarantine takes effect it will prove a serious handicap to Newlands project hay growers who market their hay in California. Andelegation from the Fallon and Fernley districts are scheduled to meet the California quarantine officials at an early date in an endeavor to stave off the quarantine during the present season. Without the California outlet this year the Newlands project will be severely handicapped because there is not sufficient live stock on the project to utilize this year's crop.

Alfalfa aphis and grasshoppers are making heavy inroads on the first crop of alfalfa in several parts of the valley. The aphis has already done its principal damage. The grasshoppers are yet small and their damage has not been found great yet, but on account of the large numbers and wide spread, the farmers expect heavy damage to the second

crop.

L. E. Cline.

## North Platte

Two days of the week ending May 26 were spent in Morrill county assisting County Agent Nelson in lining up pig clubs. A few Hampshire pigs were selected in that county for members of clubs in Scottsbluff county. The club at Morrill will begin keeping records the first of.next week.

M. N. Lawritson, dairy specialist from the extension service, visited the project this week in the interest of the Scottsbluff County Cow Testing Association. He and County Agent Sheldon called at the Experiment Farm Tuesday.

Representatives of the Reclamation Service visited the Project the latter part of the week. The party consisted of Director A. P. Davis, Assistant to the Secretary of the Interior D. W. Davis and Miles Cannon, Commissioner of Reclamation. the state of the s

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#### Unc ompahgre

Monday of the week ending May 26 was spent with the Assistant State Club Leader calling on club leaders in Delta county. Tuesday was spent with C. A. Grover, newly elected secretary of the fair and with superintendents of livestock departments.

On Wednesday the Mesa county Jersey Show was attended with a number of men from Montrose, some of whom were interested in buying cows. The show was stronger numerically than either of the two former shows and quality averaged high, 65 head of registered stock being on exhibition. A public sale advertised in connection with the show failed because owners of listed stock placed reserve bids on their stock.

The law passed by the last session of the State Legislature regarding tuberculin testing of dairy cattle, provides that any section in which 51 per cent or more of the cattle are subscribed for test may be declared a tuberculin eradication area and all cattle in the territory tested. Interest is being manifested in making Montrose and surrounding territory tuberculosis free. Time will be given to the matter next week to determine the feasibility of attempting to secure enough applicants to make a "Tuberculosis Eradication Area" here.

H. A. Ireland.

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#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

June 2, 1923.

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## Western Irrigation Agriculture

#### Belle Fourche

During the week ending June 2 the maximum temperature was 82, minimum 45, and precipitation 1.31 inches.

During the week all hogs were turned on alfalfa pasture. There are two feeder hog lots, of sixty pigs each. One of these lots will be fed  $l\frac{1}{2}$  pounds of grain to the pig throughout the summer. The other lot will be fed 1 pound of grain per pig until July 15, and then increased to  $l\frac{1}{2}$  pounds per pig, for the balance of the season. The reason for using a fixed ration in the feeder-hog experiment is that it would be easier to tell a farmer to feed so many pounds of grain a day than on a percentage basis, for in most instances the farmers have no facilities for weighing hogs. The  $l\frac{1}{2}$  pound stationary ration will amount to about the same as a two per cent ration for the season on a 100 pound feeder pig.

Hogs in the irrigated rotations will be fed the usual two per cent ration as before. The brocd sows that are carried over are fed at the rate of  $1\frac{1}{2}$  pounds per day. The average weight of these sows is about

350 to 400 pounds.

On May 23 the two cows were turned in on the sweet clover pasture in rotation No. 37. The cows were taken from good mixed grass pasture and were giving from 40 to 42 pounds of milk each, per day. On the first day, one of the cows bloated badly and dropped down to 25 pounds of milk per day and then gradually came back to 35 pounds. The other cow did not show any signs of bloat but her milk production decreased from 41 to 35 pounds per day. The pasture was cleaned up in 10 days and during that time one cow lost in weight 150 pounds and the other 140 pounds. The weights of the cows when turned in were 1,520 pounds and 1,200 pounds.

Beyer Aune.

## Scottsbluff

The average maximum temperature for the week ending June 2 was 79, with a maximum of 87 on the 31st of May, the average minimum was 51 with a minimum of 43 on the 29th of May. No precipitation was recorded during the week.

The alfalfa pastures in Field H and the small alfalfa plat in Field

C were irrigated and the water shut off for a few days.

The potato plats in Field K were prepared and planted. The pasture plats in Field D which were pastured last year were plowed, prepared and planted to potatoes.

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## Scottsbluff (continued)

The beet plats in Field K were cultivated this week and blocked and thinned. A very good stand was secured. The beets in Plat I of Field B, which were of a later planting, were somewhat retarded by the crust that formed after the heavy rain until they were harrowed. They are now coming very nicely.

Grasshoppers are beginning to show up in various localities throughout the Valley.

James A. Holden.

## Demonstrations on Reclamation Projects

#### Belle Fourche

The first part of the week ending June 2 heavy rains occurred with treacherous roads resulting and no more automobile travel than was deemed necessary was performed. The last of the week was spent at Custer with county agent Ellison attending the annual meeting of the Black Hills Pure Bred Live Stock Association. This association includes in its membership the most progressive breeders of livestock in western South Dakota and eastern Wyoming. The program included stock judging of beef and dairy animals, demonstrations with various breeds of poultry, talks on dairying in the Black Hills and pure bred cattle and hogs as applied to local conditions. The speakers were all extension specialists secured from the State College at Brookings. With so much enthusiasm in evidence, there is no doubt that this association will be a big factor in boosting pure bred stock in the Black Hills.

Arrangements were made for conducting two demonstrations along poultry lines the coming week on the project.

Butterfat is now worth 30 cents and eggs  $16\frac{1}{2}$  cents on the local market.

Frank E. Miller.

#### North Platte

During the week ending June 2 records were started in one pig club and two dairy calf clubs. The clubs in Scottsbluff County are all started now. Some work will yet be done in Morrill County, Nebraska and Goshen County, Wyoming.

In addition to selecting pigs for club members some assistance was given to farmers in selecting breeding stock. D. N. Plummer of Dutch Flats purchased in Wyoming two Spotted Poland China bred gilts and an outstanding Hampshire boar was selected at Bayard to head the herd of Trout Brothers, Hampshire breeders, also of Dutch Flats community.

A great many farmers are treating their hogs for mange with good results. Assistance is given whenever necessary. One herd was treated this week.

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#### Shoshone

Nearly all of the week ending May 26 was taken up with work pertaining to Boys' and Girls' Clubs. Eight visits to sheep camps were made and 21 lambs were secured. These were turned over to club members along with instructions in feeding and caring for lambs. Thirty record blanks were mailed to members of the Lamb Club.

Information about the wool market was given to 16 sheep growers. Farm flocks have all been clipped, but the wool is still unsold.

A visit to sheep camp was made every day but one of the week ending June 2 and 19 lambs secured for lamb club members. The end of the lambing season finds practically all members supplied with animals.

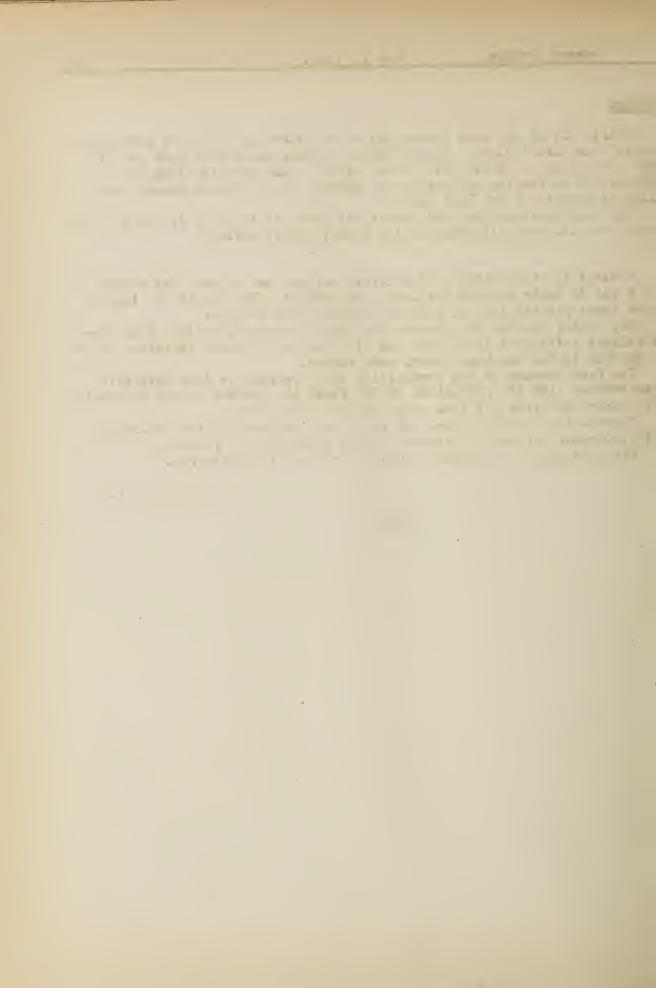
Mr. Cooley visited the project May 28-30 inclusive, during which time the soldier settlement at Francie and also the new Willwood division, including the Dam in the Shoshone River, were viewed.

The Farm Bureaus of two communities are preparing to farm districts in accordance with the provisions of the State Law enacted by the Legislature last winter and force all land owners to use poison bait.

Twenty-eight hundred pounds of seed corn furnished by the Burlington Railway Company has been distributed in 15 pound lots to farmers.

Cream stations are paying 36 cents per pound for butterfat.

G. A. Wright.



#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

June 9, 1923.

23

## Western Irrigation Agriculture

#### Belle Fourche

During the week ending June 9 the maximum temperature was 80, minimum 45 and precipitation 2.60.

Irrigation of alfalfa was commenced on June 4 but due to continuous rains on the 5th and 6th was discontinued. No field work was done during the week. The men were employed in digging ditches for the water system, and some work was done on the reservoir and building fence. All crops are about ten days or more late. The small grain is in excellent condition to date. Good stands have been secured on all crops, particularly sugar beets. The beets have been cultivated once and thinning will commence as soon as conditions permit.

Mr. Sheets, of the Bureau of Animal Industry, visited the station on Monday and Tuesday.

Beyer Aune.

#### Newlands.

For the period ending May 28 Mr. Knight reports as follows:"The meteorological data recorded at this station for the period
follows:- Mean maximum temperature, 76; maximum, 85 on the 24th; mean
minimum 43; minimum 35 on the 14th; rainfall .10 of an inch on the 15th,
.29 on the 20th and .06 on the 21st.

The field plantings during the period were sudan grass on that portion of field A lying between the old orchard and the grass plats, and millet on C9 followed by sweet clover.

The garden plantings were as follows: Tomatoes, beans, pepper, cabbage, popcorn, and peanuts.

The beets on fields D and E have received two cultivations and at present are being thinned. The grass plats on field A have been thoroughly freed from weeds. This year these plats have received many visits from project farmers. As the dairy industry increases more farmers are trying out grass pastures. It has been possible with the aid of these grass plats and the grass pasture to give a fairly accurate idea of the grasses best suited to this locality.

Early in the spring alfalfa aphids appeared in such quantities that many fields of alfalfa were so stunted that the first crop of hay will be far below the normal tonnage. At present the cantaloupe farmers are bothered by the work of a maggot that attacks the stem of the young seedling. This pest seemingly lives in the soil and enters the stem of the growing plant. Another cause of trouble to melon growers is the cut worm. There are also large numbers of grasshoppers present. They are in such large numbers at the station that it has been found advisable to repair the grasshopper catcher used in previous years, so that it will be ready to use after harvesting the first crop of alfalfa.

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## Newlands. (continued)

Two irrigations have been made during this period. One on the 14th and one on the 18th. The plats receiving irrigation on the first named date were Y 1 to 13, inclusive; all of G. H5 to 20, inclusive, excepting 12; all of F excepting 5 and 9; all of D excepting 1; all of C excepting 1 and 7. The second irrigation includes plats B5 to 22; E 3, 4, 5, and 6 and C 7.

The meteorological data recorded during the week ending June 2 follows: Temperature - mean maximum, 68; maximum, 77 on the 3rd; mean minimum, 38; minimum, 33 on the 2nd; the total rainfall was .08 inches, on May 29th.

The planting during this period was as follows:- 3 rows Amber Sorghum on A3, 3 rows Broom Corn on A3, Phalaris stenoptera on grass plat #4. Golden Millet on grass plat #15.

Two men have been kept busy thinning beets and one cultivating corn. At present the garden requires the attention of one man. There has also been some general work about the buildings such as trimming the hedges, cutting the lawn and caring for the flower garden.

The rye pasture experiment has been completed and all cows removed. The final results showed that one acre of rye was capable of carrying one cow for a period of 99 days. The three cows that were placed on grass pasture May 2 had so depleted the grass by June 1st that it was found necessary to fence the sweet clover on C6 to be used as a supplementary pasture.

The plats irrigated during the week were B5 to 10, inclusive; C2 to 10, inclusive; excepting C9; D1, 2, 3, 4; F9, 11, 12; H 1, 2, 3, and 20 to 26, inclusive.

On the evening of May 30th, Mr. Headley gave an address on "Pastume and Forage Grasses" at the Island Farm Center.

HOG FEEDING EXPERIMENTS FOR THE 4 WEEKS ENDING MAY 31, 1923.

|                   | 7 - 1 1     | T A TT          | T.A. TTT        | T - 1 TV          |
|-------------------|-------------|-----------------|-----------------|-------------------|
|                   | -           | Lot II          |                 |                   |
|                   | Barley+Hay: | Barley+Milk+Hay | :Barley+Pasture | Barley+Milk+Past- |
| Number of Pigs    | 5 :         | 5               | : 5             | 5 ure             |
| Initial Weight    | 205 :       | 203             | :: 204          | 199               |
| Final Weight      | 243 :       | 248             | : 274           | 259               |
| Gain              | 38 :        | 45              | : 70            | : 60              |
| Daily Gain (lbs.) | ) 1.36 :    | 1461            | : 2.50          | 2.14              |
| Daily Gain (%)    | -61         | .72             | : 1.06          | •95               |
| Barley Fed (1bs.) | 119.3       | 60.8            | :129.1          | 62.0              |
| Milk Fed (lbs.)   | :           | 304.            | :               | 310.              |
|                   | :           |                 | :               |                   |
| Value of Barley   |             |                 | :               |                   |
| €\$2 per cwt.     | 2.38 :      | 1.22            | 2.42            | : 1-24            |
| Value of Milk     | •           |                 | •               | •                 |
| ↑ \$.01 per gal.  |             | -38             | :               | : .39             |
| Total cost of     | 2.38 :      | 1.60            | : 2.42          | : 1.63            |
| feed              | :           |                 | :               |                   |
| Cost per lb. gain | .063 :      | •036            | : -035          | . 027             |
|                   |             |                 |                 |                   |

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## Scottsbluff.

The average maximum temperature for the week ending June 9 has been 69 with a maximum of 84 on the 3rd; the average minimum was 50 with a minimum of 43 on the 7th. The week has been wet, the precipitation being as follows; 4th, 1.08 inches; 5th, 0.92; 8th, 0.67; 9th, 0.81, or a total of 2.48 inches. The total precipitation for the season (since April 1) has been 6.82 inches as compared with 7.35 inches last year for the same period.

The work for the period has consisted of miscellaneous maintenance jobs, setting out trees in the windbreak on the east side of Field E, fenc-

ing, etc.

The rains the first of the week washed out beets on some of the steeper land in various places. The stand of beets in Plat I of Field B was damaged to some extent by water draining from the land above. Where the stand has been ruined, the beets are being replaced with corn or potatoes where they can be secured.

The following table shows the results in gains made by four lots of fall pigs which were on test through the winter. Lots 1 and 2 were self-fed, while Lots 3 and 4 were fed a 2% corn ration. In addition, Lots 3 and 4 were fed 15 bushels of cull potatoes each during a part of the time they were on test. One hundred and forty days was the length of the test period.

James A. Holden.

SUMMARY OF RESULTS IN HOG FEEDING TESTS

|                               | :<br>SELF - | FEEDER   | 2%      | RATION     |     |
|-------------------------------|-------------|----------|---------|------------|-----|
|                               | Lot 1       | : Lot 2  | : Lot 3 | : Lot 4    | :   |
| Number of pigs in lots        | 10          | : 10 :   | : 10    | : 10       | :   |
| Number of days on test        | 140         | : 140    | : 140   | : 140      | :   |
| Initial weight                | 600         | : 800 :  | 655     | : 530      | :   |
| Final weight                  | 2105        | : 2400   | : 1320  | : 1250     | •   |
| Total gains                   | : 1505      | : 1600   | : 665   | : 530      | :   |
| Average daily gain per pig    | 1.07        | : 1.14:  | . 47    | : .51      | . : |
| Plounds feed consumed         | :           | :        | :       | :          | :   |
| Corn                          | 6716        | : 6764   | 2313    | : 2047     | :   |
| Potatoes                      | :           | <b>1</b> | 900     | : 900      | •   |
| Pounds feed per 100 lbs. gain | •           | :        | :       | :          | :   |
| Corn                          | 446         | : 423    | : 351   | <b>285</b> | :   |
| Potatoes                      | :           | :        | : 14    | : 12       | :   |
|                               | <u>:</u>    | :        |         |            |     |

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## Demonstrations on Reclamation Projects

#### Belle Fourche.

The first half of the week ending June 9 was rainy with almost impassible roads and very little traveling.

On Wednesday Miss Sutter, a poultry specialist of the State extension department, gave a talk at Newell on the care and feeding of baby chicks which was followed by demonstrations on caponizing and preparing broilers for market. Due to the difficulty in traveling but 25 poultry raisers attended this meeting.

Arrangements are complete for a tour of all the members of the pig clubs early this next week. It is planned to stop at the home of every member where a short talk on some phase of the feeder-pig industry will be given by one of the members followed by a discussion of the topic. Demonstrations on judging are also scheduled.

Milk testing was run for three farmers. In one case a badly worn separator was discovered through the skim milk test and new parts ordered.

Frank E. Miller.

#### Minidoka.

The principal event of importance during the week ending June 2 was the success in saving a herd of Holstein Friesian cattle for the project. These cattle had to be sold to satisfy claims against them. Instead of letting them be sold at a private sale to some dealer, the agriculturist prevailed on the mortgage holders to hold a public sale in the owner's name. These cattle brought about twice the price offered by the dealers and excepting six head, all stayed in the immediate neighborhood. Yearling heifers sold for \$47.50 to \$55.00; two year olds, \$60.00 to \$90.00; and cows from \$70.00 to \$110.00, grade animals.

An attempt was made by the Wool Growers Association to organize a selling pool for lambs but the scheme does not seem to be very enthusiastically received. Farmers seem to be afraid to trust one another to ship the stuff.

The wool pool has sought to bind the farmers with hard and fast contracts and in the judgment of the agriculturist are injuring the pool and the pool idea. If the managers of the pool are not able to make a success of it and are not willing to revise their ideas, the agriculturist will attempt to make shipments of lambs under a pooling plan similar to the one used on the Newlands Project by Mr. Cline.

J. T. Montgomery.

## North Platte

The first half of the week ending June 9 was spent with County Agent Nelson of Morrill county working on boys' and girls' clubs.

Two pig clubs and 2 calf clubs were organized and assistance given in selecting pigs and calves. Arrangements were made with the County

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## ALLEY TRACES

## North Platte (continued)

Fair Board to offer prizes to club members who exhibit at the fair.

Practically all the pig club members in Scottsbluff county were visited during the week and instruction given as to the care of their pigs. Some of them are inclined to get their pigs too fat but most of them are doing well.

The Scottsbluff County Fair Board is offering liberal awards for calves and pigs shown by club members and also for judging teams representing the

clubs.

D. H. Propps.

## Shoshone.

During the week ending June 9 four lambs were secured for club members and a great deal of time was used in making visits to assist boys and girls in keeping their records and feeding animals properly. Miss Emerson, State Club Leader, was a visitor.

Two wool buyers were given information about the quantity and grades of wool on project farms. At a meeting on Saturday the Powell Wool Growers Association set June 19 as the date when the clips shall be assembled at the warehouse at Powell, where it will be stored until sold.

Two water-users' meetings took place. One was addressed by Mr. Cannon, the other elected a committee of 15 men to draft a relief plan which will be

acceptable to the Department of the Interior and also to settlers.

The whole of Park county has been made a pest District by the County Commissioners, and the County Agent, Mr. Allen has been put in charge of the grasshopper control work. Two inspectors have been employed and considerable progress has been made toward community organization.

G. A. Wright.

#### Sun River.

During the week ending June 9 four calls were received to lay out farm ditches. One field was partly laid out.

All other work was overshadowed by the probable return of the grass-hoppers. Practically all of the project was gone over and an effort made to determine the extent of the pest. Part of a day was spent with the County Agent. On a few farms the grasshoppers had taken the grain in spots, in no place, however, had any serious damage been done. The weather for the past week has been cloudy and almost every day a slight rain has fallen. This has prevented the hoppers from hatching out or migrating.

Where poison has been used it has been found effective. The difficulty is in ridding the hoppers in the many vacant uncultivated fields. Here

the weeds are thick and the greatest number of pests are found.

Most all of the farmers realize the gravity of the situation and are making an effort to poison. Inability to procure bran has delayed the poisoning for a few days.

The Reclamation Service has agreed to poison ditch banks wherever the

farmers will poison the fields on each side.

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#### Uncompangre.

Two boys were taken to Hotchkiss on Tuesday of the week ending June 2 to select pigs from the Duroc-Jersey herd of Clements and Clements. Weaner gilts from this herd cost \$12.50 each, already registered. They are the best stock available but not many members are able to pay that price. Pigs were also selected for two other boys and delivered to them. Pig club enrollments are very much lower than last year, the reason probably being that it is more difficult to secure money. Several members of last year have not yet paid for their pigs, and banks are slow about extending credit this year.

One flock of 75 White Leghorns was culled this week, one flock in which some loss had occurred from disease was inspected, and two persons were advised regarding culling and feeding.

Some time has been given to the tuberculin testing campaign, Dr. Griffiths a local veterinarian and City Manager McDaniel having been consulted in regard to forming a tuberculosis eradication area around Monstose, and several other men advised about the testing work.

Two inquiries were received about pastures.

Following is a report on a lot of hogs shipped in from Dolores and fed out on potatoes with some grain and hay:

| No. Hogs                    | 100         |
|-----------------------------|-------------|
| Initial wt.                 | 107         |
| No. days fed,               | 112         |
| Average gain,               | 98.3 lbs.   |
| Hay fed                     | 7,000 lbs.  |
| Potatoes fed                | 150,000 lbs |
| Corn fed                    | 21,500 lbs. |
| Feed per cwt. gain          | •           |
| Potatoes                    | 1,526 lbs.  |
| Corn                        | 218 lbs.    |
| Hay                         | 71 lbs.     |
| Cost per cwt. gain, includ- |             |
| ing labor, fuel and water.  | \$5-82      |

The week ending June 9 has been given principally to club work and work in connection with a tuberculin testing campaign.

The last General Assembly enacted a law providing that if 51% of the dairy cattle and purebred beef cattle in any section or area were subscribed for tuberculin test, the State Veterinarian might designate that territory as a "tuberculosis eradication area" and test all cattle within the area, paying indemnity for stock condemned as a result of the test. In  $2\frac{1}{2}$  days spent interviewing dairymen, sentiment in favor of the test was practically unanimous. One article on this subject was written for the press.

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#### WEEKLY REPORTS

Of the Offices of

# WESTFRN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

June 16, 1923.

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## Western Irrigation Agriculture

#### Belle Fourche

During the week ending June 16, the maximum temperature was 85, minimum 49 and precipitation 0.4.

Beets were hoed and thinned in the maximum production test and about two-thirds completed in the irrigated rotations. A very good stand was secured on all the plats.

All the corn was cultivated and the roads and ditches cleaned up.
All the crops are in excellent condition, particularly the small grain.

Beyer Aune.

## Huntley

The maximum temperature for the week ending June 16 was 92, minimum 41 and precipitation .04 inch.

The rainfall curing the first half of June amounted to only .18 inch and during the last half of May to .67 inch, which is about 2 inches less than normal for this period. Crops on dry land are showing the effects of drougth in many cases and on irrigated land the irrigation requirement has been high with canals filled to capacity curing most of this time.

Harvest of alfalfa was begun during the week and good yields will

result from this crop.

Damage to crops by grasshoppers is occurring in many sections. Poisoned bait is being distributed by the County to combat this pest. Mixing "bees" were held at Pompey's Pillar and at the Experiment Farm on June 11 and 12. About 30 tons of poisoned bran was distributed to 200 farmers on the project. Other mixing "bees" will be held during the week of June 25 to distribute bait to be used after the removal of the alfalfa crop.

Director F. B. Linfield and Prof. Clyde McKee of the Montana Experiment

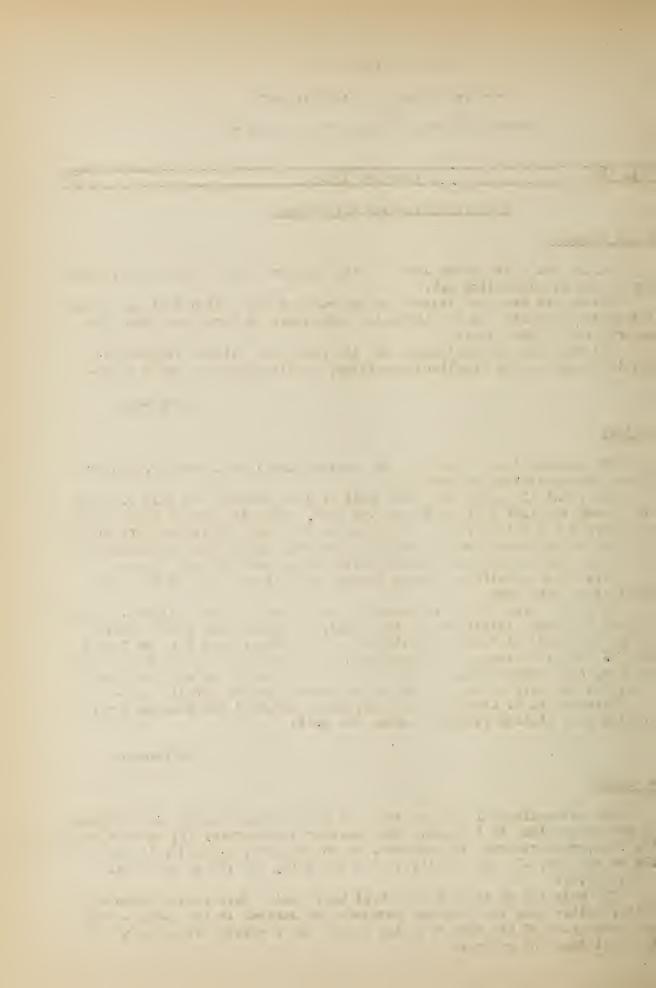
Station were station visitors auring the week.

Dan Hansen.

## Newlands

The meteorological data recorded at this station during the two-week period ending June 16 follows: Mean maximum temperature, 77; maximum 89 on the 10th; mean minimum, 44; minimum, 32 on the 13th; rainfall, (in inches) .09 on the 5th; .08 on the 6th, .13 on the 15th; and .05 on the 16th, a total of .40.

The majority of the men were kept busy during this period thinning the beets, cultivating the corn and potatoes and working in the garden. One man spent part of his time trimming hedges and generally cleaning up around the buildings and grounds.



## Newlands (continued)

All the plats on G have been disced and seeded to millet and sweet clover.

A general irrigation was given the plats as follows: - all of B, F and G; all of H except 1, 3, 4 and 13; all of C except 1 and 8; all of D except 1, 2 and 5.

The alfalfa aphids are about gone and the melon growers seem to be safely through the seedling stage of development with its numerous enemies. However, the grasshoppers are present in such numbers that the county agricultural agent is planning a general poison compaign. This campaign is to be started sometime after the first crop of hay is cut.

The melon acreage has been quite badly damaged by a killing frost on the morning of June 13th. This frost occurred later this year than during any year previously recorded. The latest spring frost recorded at this station before 1923 was on the 1st of June in 1916.

F. B. Headley.

#### San Antonio

A summary of the meteorological data recorded at the San Antonio Experiment Farm for the six weeks period ending June 9, 1923 is as follows:-

| Week<br>ending | : Temperatures : :Max.:Min.:G.D.R.: | Precipitation | : Number of days<br>:Clear : P. Cloudy : Cloudy |
|----------------|-------------------------------------|---------------|---|
| May 5          | : 90; 52; 38;                       | Т             | : 6 : 1 : 0                                     |
| May 12         | 91 : 57 : 31 :                      | •34           | 6 1 0   |
| May 19         | 95 : 56 : 37                        | .10           | 5 2 0   |
| May 26         | 95 : 65 : 25                        | .13           | 4 2 1   |
| June 2         | 97 : 65 : 32                        | 1.10          | 5 2 0   |
| June 9         | 96 70 26                            | .22           | 6 1 0   |

A good rain of 1.10 inches occurred May 29, just in time to help corn which was beginning to tassel freely and was showing first symptoms of moisture deficiency. The remainder of the precipitation recorded came in small, local showers which had no effect other than to interfere slightly with field work. The weather has been ideal for harvesting and haying. Much Johnson grass hay has been put up in excellent condition and threshing is now being cone in the grain growing section north and north-west of San Antonio.

Oats were harvested for hay May 8 and produced an average yield of 2.40 tons of air dry hay per acre; the maximum yield was at the rate of 2.68 tons and the minimum yield at the rate of 1.70 tons per acre.

All oats, wheat, rye, barley, and flax (except from nursery rows) was harvested and threshed curing the six weeks period covered by this report.

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## San Antonio (continued)

The average yield of pats in the rotation plats was at the rate of 36.2 bushels per acre, the highest being 51.9, and the lowest 18.4 bushels per acre. The average yield from these rotation and tillage plats for the 15 year period, 1909 to 1923, inclusive, is 15.74 bushels per acre. Very little rust occurred in the oats this year and the quality of the grain is very good; this statement applies to all the oats grown in the San Antonio region. The best yields of grains grown in the variety test were as follows: Oats (Texas Red Rust Proof) 52.2 bushels; Wheat (Arnautka) 17.0 bushels; Rye (Texas Winter) 14.5 bushels; and Barley (Texas Winter) 14.5 bushels.

The first cutting of alfalfa from field E3 was made May 11. Although this first crop contained a small percentage of Johnson grass, the quality of hay was very good. Plat "A" (inoculated section) yielded at the rate of .82 tons air dry hay per acre and plat "B" (not inoculated) yielded at the rate of .98 tons per acre. Root rot appeared in small, scattered sections throughout both plats on June 6 when the second crop of hay was about 10 inches tall and just starting to bloom.

Root-rot was first observed in the cotton June 8 on rotation plat B6-18. The following day several plants were found dead in field AB8. The smallest plant definitely known to have died from this disease this season was only eight inches tall.

So far this season the infestation of sorghum midges has been quite light, no appreciable damage having been done up to this date. Cotton boll weevils were first observed about the first of June and have punctured an average of approximately ten per cent of the squares to date. Control measures in line with the "Florida method" will be applied the following week in fields AB8 and D4.

All farm work has progressed with very little interruption during the period and most fields are now in good cultivation. Johnson grass has been especially aggressive this season and has required a great deal of hoe labor.

Dr. Eben H. Toole, of the Seeding Testing Laboratories, Bureau of Plant Industry, spent May 27 and 28 at the station studying the field germination tests being made with various lots of cotton seed.

Mr. John H. Martin, Agriculturist in Western Wheat Investigations, Office of Cereal Investigations, spent June 5 at the station.

Geo. T. Ratliffe.

## Scottsblüff

The average maximum temperature for the week ending June 16 was 77, with a maximum of 85 on the 16th; the average minimum was 55, with a minimum of 50 on the 11th. The precipitation was 0.94 inch, making a total for the season of 7.66 inches.

The routine work of the farm has been carried on. During the week the beets and corn have been cultivated. Water has been ordered for the following week and the grain fields will be irrigated. All crops are making a very satisfactory growth.

The crops over the Project are in very fair condition. There will be a slight increase in the potato acreage owing to the fact that the rains have washed out some of the beets and the crop is being replaced with potatoes where, the seed can be secured. The scarcity of good seed will prevent a very great increase.

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## Demonstrations on Reclamation Projects

## Belle Fourche

Early in the week ending June 16 a tour of the members of the Vale Pig Club took place, including stops at the homes of each member. At each stop some definite topic such as feeding, disease control, desirable type and quality was presented and followed by a general discussion. Nine of the twelve members of the club have fine litters of thrifty pigs. Two members in their first attempt with purebred stock have learned some valuable pointers and will do better with their fall litters. A similar tour for the members of the Newell Pig Club is planned for the coming week.

The annual Farm Bureau picnic was held at Nisland on Friday. A perfect day with a fine program brought out a crowd estimated at from four to five

hundred.

Eggs bring  $14\frac{1}{2}$  cents per dozen on the local market. Butterfat is now quoted at 30 cents.

Frank E. Miller.

## Minidoka

The most interesting part of the week ending June 9 was the visit over the project with Mr. Cooley, and following that a visit to Twin Falls Project both the north and south side.

It was interesting to find that the settlers on the Government projects were doing about as well as settlers on private projects who had more to start with.

General conditions on the Minidoka project are gradually improving. Crop prospects at present are excellent. Grasshoppers and alfalfa weevil are coing some damage. Grasshopper poison is being placed by the County Commissioners and some spray outfits are being used on the weevils. Most farmers will cut the alfalfa very shortly, especially in the weevil infested fields.

John T. Montgomery

## Newlands

Some time has been devoted during the week ending June 9, in connection with the dairy herd record work. A summary report of the Newlands Project Herd Testing Association work was prepared for the May testing work. During the month of May, 1,078 cows were tested. This is the largest number of cows ever on test in the project. They represented seventy-three herds. The average production per cow for May was 740 pounds of milk and 29.01 pounds of butterfat. One hundred and seventy cows of the association produced forty pounds or more fat during the month.

Feeding conditions for the dairymen have not been very good during the month of May. The feed supply is invariably short and of poor quality just prior to the first cutting of alfalfa hay. The dairymen as a rule are using up the remnants of the previous year's crop, and in many cases, the supply is exhausted where they have everestimated their surplus and sold more than they should, and before the new crop comes on, are obliged to purchase whatever they can find in the neighborhood. Had it not been for this situation with reference to feed, the average production of butterfat would have been much higher for May.

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### Newlands (continued)

The herd testing work is constantly growing in favor and the plan of the association seems to be working out well.

L. E. Cline.

107

#### North Platte

Part of the week ending June 16 was spent selecting breeding stock for both farmers and club members. A Jersey heifer and a Jersey bull was selected for R. A. Childs at Henry; a Holstein heifer for Kenneth Johnson, and three pigs for pig club members. Five Morrill county clubs will begin keeping records next week.

Sick pigs were reported at T. O. Richardson's near Bayard. Examination showed acute indigestion and presence of thorn-headed worms. The pigs were having spasms until they were almost exhausted. A light ration with plenty of exercise was advised. All the sick pigs were given epsom salts. Those that were suffering the worst were given santonin and calomel followed by epsom salts. For the whole herd the following mineral mixture was advised:

| Slack coal   | 120 | pounds |
|--------------|-----|--------|
| Slacked lime | 10  | pounds |
| Salt         | 10  | pounds |
| Copperas     | 4   | pounds |
| Sulphur      | 4   | pounce |

The farrowing pens at the experiment farm were cleaned, scalced and made ready for the sows at farrowing time this fall.

D. H. Propps.

#### Shoshone

The Powell Creamery after being cleaned thoroughly, painted and repaired was reopened during the week ending June 16. Three cents above market price is to be paid for good, clean flavored cream which will be made into butter at the plant. Second grade cream will be shipped out of town.

The Powell Sheep Growers' Association sold its wool Saturday for 41 cents a pound. This is 4 cents less than an offer received a few weeks earlier.

Milk samples from 3 dairy herds were tested and 4 milk sheets were completed for owners. At the request of the County Agent of Park County who was unable to get to the project two days were used giving instructions to community captains in the mixing and use of grasshopper poison bait. The remainder of the week was taken up with boys' and girls' club work.

G. A. Wright.

#### Sun River

For the week ending June 16, Mr. Kelsey reports as follows: "Esilure to procure arsenic and bran during the week has delayed the

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#### Sun River (continued)

poisoning of the grasshoppers. The grasshoppers are most severe on the short late grain. A number of farms were visited where poison has been scattered and the positive results of the poisoning were in evidence. Most of the farmers are doing all in their power to fight the pests.

The main canal will be repaired and water will be out Monday of next week. The grain is looking fine and is not suffering for water. Many patches of alfalfa, however, need irrigating. A large amount of new land will receive water for the first time and many calls are being received to lay out farm laterals. The laterals on four farms were surveyed this week. With irrigation starting next week an increasing amount of this work will be requested.

Blaine Kelsey.

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#### WEEKLY REPORTS

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

June 23, 1923.

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### Western Irrigation Agriculture

#### Belle Fourche

During the week ending June 23 the maximum temperature was 85, minimum temperature 49 and precipitation .67.

The thinning of beets in the irrigated rotations was completed. The alfalfa in field A was cut, raked and hauled. The first cutting is about an average yield. In the irrigated rotations the yield varied from 250 pounds per acre, on a fall seeded plat, to  $2\frac{1}{4}$  tons per acre on a continuous alfalfa plat that has been manured at the rate of 12 loads per acre since 1916.

The alfalfa in fields I and P has also beem mowed and raked and the dry land corn in fields G and P has been cultivated. The cutting of alfalfa on the project in general is about one-third completed.

Beyer Aune.

#### Huntley

The maximum temperature for the week ending June 23 was 88, minimum

45 and precipitation 1.85 inches.

The rainfall of 1.85 inches which occurred during the week was of much benefit to both irrigated and dry land crops. As a result of insufficient rains during the previous month dry land crops as well as late planted beets and other crops on irrigated land were greatly in need of moisture. Conditions of drought in many sections of the state were relieved by this rain which was reported to be general. Hay harvest on the project was well under way and while good yields will result the crop will be damaged to some extent.

Mr. J. M. Stephens of the Office of Dry Land Agriculture visited the

Station on June 20.

Dan Hansen.

#### San Antonio

The maximum temperature for the week ending June 16 was 97, minimum temperature 69, and greatest daily range 29. A total precipitation of .31 inch occurred in the nature of local showers scattered over four days. Four days were recorded as clear, two as partly cloudy, and one as cloudy. The rainfall did not interfere with field work and all operations progressed satisfactorily.

Several fields of cotton, both south and north of San Antonio, planted following the good rain which occurred the latter part of May, have emerged curing the week. Another good rain is needed soon if these fields are to

come through.

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### San Antonio (continued)

All squares were picked from the east 614 feet of the cotton on field ABS and calcium arsenate applied immediately following, on June 11. An average of from three to four squares per plant were removed. The growth of the plants was not uniform and while some plants has as many as ten squares, others had none. Data recorded regarding the labor and poison required for this field are as follows:-

Man-hours per acre to pick squares ...... 27 Man-hours per acre to apply poison ......  $1\frac{1}{2}$  Calcium arsenate applied; Lbs per acre ...  $7\frac{1}{2}$ 

Similar treatment of cotton on field D4 was applied under the direction of the office of Crop Acclimatization and Adaptation Investigations on June 12 and 13.

Root-rot and stand counts of cotton on rotation and tillage plats were made June 13 and 14. Much heavier infestation is found in the four continuously cropped plats than in plats subjected to rotation of crops; 3.7 per cent of the plants on B5-3 being already dead.

Field work at the station included the harvesting of the second crop of alfalfa from field E3; plowing on rotation plats and flax stubble on A3; disking all fallow plats and fields, taking soil moisture determination samples; and the continuation of Johnson grass chopping.

Geo. T. Ratliffe.

#### Scottsbluff

The average maximum temperature for the week ending June 23 was 84, with a maximum of 89 on the 22nd; the average minimum was 53, with a minimum of 44 on the 18th. Precipitation, 0.15 inches, making a total of 7.81 inches for the season.

Harvesting the first cutting of hay began on the 20th. The barley fields in C-III, D and E were irrigated and the water turned on the sweet clover pasture in Field E the middle of the week.

The condition of most crops in the Valley is verygood. Grain gives promise of being equally as good as last year. Alfalfa has not made the growth this year that it had last season at this time. There has been a considerable loss of beets in some localities and the ground is being planted to some kind of a catch crop. Potatoes have replaced some of the beet acreage.

James A. Holden.

#### Yuma

The maximum temperature for the two week period ending June 23 was 107, minimum 48, greatest daily range 47 and precipitation 0.

The minimum temperatures for the last three weeks have been unusually low, ranging from 49 on June 1 to 60 on the 15th.

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### Yuma (continuea)

The mean maximum temperature for the past was only 92.1.

It is generally considered that this cool weather has been beneficial to all crops. The alfalfa seed seems to be setting fairly well and the condition of the cotton up to date is very satisfactory.

Flood reports on the Colorado river indicate that all danger of high water for this year is appraently over. While the maximum daily discharge in acre feet was not as high as last year, the total for the season will probably be much greater.

Station work performed during the two week period included the harvest ing of the second cutting of alfalfa on the irrigated rotations, cultivating cotton; plowing under sweet clover, C-3-8, inclusive; planting cowpeas, cleaning irrigation citches, general hoeing, and irrigating.

Mr. H. L. Westover, of the Office of Forage Crop Investigation, and Messrs. R. E. Blair and N. I. Nielson, of the Bureau of Crop Estimates,

were station visitors on June 17 to 19.

E. G. Noble.

### Demonstrations on Reclamation Projects

#### Belle Fourche

The Newell Pig Club held a very successful tour on Tuesday of the week ending June 23rd. Besides a general discussion of the common problems of swine management considerable progress was made in judging work. It is now hoped to send a team of club members from the county to the State fair where club teams judge mutton sheep, fat hogs, beef cattle, and draft horse horses. A noonday lunch in a cool woods was thoroughly enjoyed.

The South Dakota Development Association held outdoor meetings at Newell and Nisland under the auspices of the Commercial Clubs. Improvement and increase in the number of livestock kept on farms was urged. The slogan was, "Four more sows and two more cows on every farm".

Some hog growers still take chances by not vaccinating against cholera. Three mild outbreaks occurred this week. Immediate vaccination by the local veterinarian has held the loss to about 10 head.

Frank E. Miller.

#### Minidoka

The first outbreak of hog cholera was reported during the week ending June 16. The outbreak was discovered promptly and hogs were vaccinated. Four head were lost before vaccination and three afterwards. Proper disinfecting and sanitary measures were carried out to prevent spread.

J. T. Montgomery

# Newlands

On Sunday of the week ending June 16 a trip was made to Reno, Nevada, to attend a meeting of the State Farm Bureau organization and others interested in cooperative marketing. The principal speaker at this meeting was

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# Newlands (continued)

Mr. Aaron Sapiro, who is legal advisor for the marketing department of the American Farm Bureau Federation. Following the Reno meeting a similar meeting was held at Fernley, Nevada, which was also attended by the delegation from the Newlands project. Mr. Sapiro addressed this meeting also. The two addresses were very helpful. The key note of the addresses was organization for marketing on a commodity basis instead of on a commodity basis. Mr. Sapiro endeavored to show how cooperative organisations on a community basis failed to regulate the flow of agricultural products to market and therefore were unable to regulate the price. In other words community organizations were competing against one another instead of individuals competing against one another and the dumping of agricultural products on the market without regard to supply and demand was not regulated under the community organization plan.

Following the Fernley meeting a delegation of farmers from Susanville, California, came to Fallon to make a survey of the local dairy industry, also hoping to buy dairy cattle. A considerable part of the next day was devoted to this party. They were much impressed with the extent of the dairy industry of the valley, but were unable to find dairy cattle

in any number for sale.

L. E. Cline.

#### North Platte

Two days of the week ending June 23 were spent in Morril county assisting County Agent Nelson in getting his three pig clubs and two calf clubs started. The members were all started to keeping records by the middle of the week. There are now eight pig clubs and four calf clubs in the Valley.

L. I. Frisbie, State Leader of boys' and girls' clubs, was in Scottsbluff county Friday and Saturday. Three conferences of local leaders were held and club problems were discussed. Mr. Frisbie spent a short time at the Experiment Farm Saturday afternoon.

Bick hogs were reported north of Mitchell and examination showed a severe case of cholera. The herd was given the serum treatment.

Heavy losses of young chicks were reported in Mitchell Valley and assistance asked for. Symptoms of white diarrhoea were found.

D. H. Propps.

# Sun River

The crop outlook was materially brightened by the heavy rains of the week ending June 23. Rain fell all day on June 17, 19, 21 and on the night of the 22nd. The total rainfall amounted to 2.94 inches. Due to the lateness of water delivery some grain and most of the alfalfa needed irrigating. This rain will add sufficient moisture to the soil to last until the first irrigation. Water will be ready for delivery by June 24th.

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# Sun River (continued)

Most of the time during the week was spent in surveying farming laterals. All the farms that were surveyed are in crop and the ditches are generally made immediately after the survey is completed.

The rainy weather has prevented any grasshopper poisoning of this week. No serious camage, however, has been reported. The camp cool weather has a tendency to prevent the grasshoppers from migrating or

feeding upon the crops.

Two farms were visited that had received late fall plowing. No grasshoppers were noticed except around the edges where they had migrated from adjoining fields. The evidence here indicated that fall plowing or disking destroyed the grasshopper eggs that had been laid in late summer. When the grasshoppers are first noticed they are found thickest in uncultivated land, on ditch banks and along fence lines. In these places their eggs have remained unmolested. These facts would indicate that the basis of the grasshopper control would be to destroy the insects' eggs by cultivation, plowing or disking of the farm land, ditch banks and uncultivated fields in the fall or early spring.

Blaine Kelsey.

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#### WEEKLY REPORTS

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#### WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XXII

June 30, 1923.

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# Western Irrigation Agriculture

#### Belle Fourche

The maximum temperature for the week ending June 30th was 90, minimum temperature 47, and precipitation .89 inches.

All of the first cutting of alfalfa has been cut, raked and shocked. Due to frequent showers haying was rather slow work and about two more days of hauling will be taken to finish it.

All of the grain, flax and alfalfa was irrigated in Field A. Alfalfa, grain and flax in Maximum production, Field P; Variety grains in Field O; alfalfa in Field P; Cow pastures and grounds were also irrigated.

Corn was cultivated in fields B, G, K & O. The hoeing of beets was completed in Field A and Maximum Production. On June 18th the two cows were turned on the sweet clover pastures in Field A, remaining for nine days on this pasture. Toward the end of this period they fell off considerably in milk production. While on this pasture one cow lost 225# in weight and the other lost 130#. To date this one-half acre of sweet clover has furnished pasture for two cows for 18 days.

On the 25th, Mr. C. G. Potts of the Bureau of Animal Industry visited the station, looking into the advisability of placing a farm flock of sheep at this station. While Mr. Potts was here 25 head of range sheep were selected from a local farmer to be delivered next fall.

Beyer Aune -

### Huntley

The maximum temperature for the week was 84, minimum 44, and precipitation .48 inch. Week of June 30th.

The precipitation for the month of June amounted to 2.60 inches. The 13-year average for this period is 2.45 inches. Frequent showers during the week interfered with hay harvest and other field work and the crop was rather seriously damaged.

Mixing "bees" at which poisoned bran for grasshopper control was distributed by the County were held at the Experiment Farm and at Pompeys Pillar. Reports by farmers as to the effectiveness of bait distributed during the previous week were generally favorable.

Dan Hansen.

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#### San Antonio

The maximum temperature recorded for the two weeks period ending June 30 was 100, minimum 66, and greatest daily range 32. Precipitation for the period was 1.61 inches, all of which occurred the night of June 30. The entire fourteen days were recorded as clear, A windstorm, which reached a maximum velocity of 48 miles per hour, accompanied the rain of June 30 and caused the partial lodging of all corn and sorghum fields in this vicinity.

Although evidence of the emergence of adult boll-weevils in the field was found as early as June 20, the infestation continues comparatively light, less than 20 per cent of the total number of squares having been punctured to date. The infestation of sorghum midge has also been unusually light this season and all early planted sorghum fields have escaped with no appreciable damage. Late planted fields show much heavier infestation. Reports of damage done by grasshoppers have been received from a few scattered locations in this region, but no very serious losses have resulted to date.

Cotton root-rot made an early appearance in the fields, then ceased

to spread appreciably as the drought became more severe.

Work on the farm included plowing small grain stubble on fields B3; C3; and C4; harvesting the hay sorghum plats other than those continuously cropped; cultivating all cctton for the purpose of closing cracks in the ground; cultivating orchards and vineyards; chopping Johnson grass from all cotton plantings; and repair and upkeep of farm buildings and grounds.

Geo. T. Ratliffe.

### Scottsbluff

The average maximum temperature for the week ending June 30 was 80, with a maximum of 86 on the 25th. The average minimum was 51, with a minimum of 47 on the 28th. The precipitation was 0.37 inch making a total to date of 8.18 inches for the season.

During the week the first cutting of hay was put in the stack.

The yields are given in the accompanying sheet.

Irrigation of the barley fields in Fields D and E was completed. All of the grain plats in Field K have been watered and the young alfalfa is in course of irrigation.

The stand of beets in Plat 5, of Field A, having been destroyed by the heavy rains recently, was plowed up and prepared for seeding

to some pasture grasses.

Haying is practically completed throughout the Valley at this time. The yields were fairly good. The first cutting protably fell a little short of the yield last year.

James A. Holden-

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# Scottsbluff (continued)

#### SUMMARY OF YIELDS OF FIRST CUTTING ALFALFA 1923 SCOTTSBLUFF EXPERIMENT FARM

| Series  | Plat |      |      | : Tons per Acre |
|---------|------|------|------|-----------------|
| I       | 11   | 65   | 600  | : 1.20          |
| II      | 6    | 61   | 1070 | 2.14            |
| II      | 11   | 61   | 585  | : 1.17          |
| II      | 12   | 40   | 545  | : 1.09          |
| III     | 6    | 60   | 1040 | 2.08            |
| III     | 11   | 60   | 670  | : 1.34          |
| III .   | 12   | 42   | 600  | 1.20            |
| IA      | 6    | 62   | 1055 | 2,11            |
| IA      | 11   | 62   | 620  | 1.24            |
| IV      | 12   | 44   | 590  | 1.18            |
| Λ       | 1    | 8    | 940  | : 1.88          |
| ٧       | 6 .  | 64   | 1000 | 2.00            |
| V       | 10   | 64   | 800  | : 1.60          |
| V       | 11   | 64 : | 730  | : 1.46          |
| Λ       | 12   | 48   | 530  | 1.06            |
| Maximum |      | :    | 1070 | : 2.14          |
| Minimum |      | •    | 530  | : 1.06          |
| Average |      |      | 760  |                 |
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#### Yuma

The maximum temperature for the week ending June 30 was 113, minimum 56, greatest daily range 51, precipitation 0.

The period of cool weather which extended from the middle of May to the third week in June has been broken. The maximum temperatures that are now being recorded are about normal for this time of the year. It is generally considered that this period of cool weather has been beneficial to the cotton and alfalfa seed crops. Cotton at this time is setting well and with less tendency toward making a rank growth. The present indications are that the alfalfa seed harvest will begin in about two weeks and that seed will bring at least 15 cents per pound. One local buyer is offering to contract seed for 15-\frac{3}{4} cents per pound.

The progress of the work in bovine tuberculosis reduction in the Yuma Valley was interrupted last week by factions who have been opposed to this campaign. These differences, however, are being straightened out and plans are being made to resume the work in the near future. Out of the first 1100 cows tested on the Arizona side, 6.9% were reactors. This same work, taken up on the California side of the project in cooperation with the State Department of Agriculture of California, resulted in 279 cows being tested with 2.7% reacting.

Dr. H. L. Simpson, of the State Department of Agriculture, was located at the station during the week while giving the tuberculin test for cattle in this district.

Station work performed during the week included plowing under sweet clover, Plats E3 to 8, inclusive; harvesting second cutting of alfalfa, C19 to 28, inclusive; planting Brown Kaoling on the plat variation test, C32 to 35, inclusive; planting soy beans for green manure crops, B15 and 16; general irrigating, hoeing and ditch cleaning.

The following table gives the results of the alfalfa fertilizer test for the second cutting of the 1923 season:

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Yuma (continued) .

ALFALFA FERTILIZER TEST - 2nd CUTTING - 1923.

|            | •   | •          | Percent        | Tons per ac    |
|------------|---|------------|----------------|----------------|
| Plat       |   |            | Increase       |                |
| No.        |   | per plat   |                |                |
| C-19-A     | :250# per acre of 16% acid phosphate                      | 395        | + 113          | + .42          |
| <b>-</b> B | Check   | 185        |                |                |
| 20-A       | 250# per acre of 16% acid phosphate: (1/)                 | 305        | + 24           | + .12          |
| :          | Check   | 245        |                |                |
|            | 500# per acre of 16% acid phosphate                       | 4          | +146           | + .51          |
|            | Check   | : 175      |                |                |
|            | : 182#per acre of 44% acid phosphate :                    | •          | + 95           | : + .41        |
|            | Check:  | 215        |                | •              |
| 23-A       | 750#per acre of 16% acid phosphate                        | 500        | . <b>∔1</b> 56 | + .61          |
| -B         | Check   | : 195<br>: |                | :              |
| 24 - A     | 4 tons manure and 250# of acid phosphate per acre.        | : 510<br>: | · + 82         | : + .46<br>:   |
| -B         | Check   | 280        | •              |                |
| 25-A       | 4 tons manure per acre                                    | 470        | + 2            | + .02          |
| -B         | Check   | : 460<br>: |                |                |
|            | 200#per acre Texas Gulf sulphur                           | : 305<br>: | + 7            | : + .04        |
|            | Check   | : 285<br>: |                |                |
|            | 200#per acre "Toro" Brand sulphur                         | 250        | - 7            | 04             |
|            | Check   | : 270<br>: |                | •              |
|            | 200# "Toro" sulphur and 250# 16% acid phosphate per acre. | 455<br>:   | +121           | <b>.</b> + •50 |
| -B         | Check   |            |                |                |
|            | (1/)250# per acre to be added in fa                       | 11.        |                |                |

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#### Demonstrations on Reclamation Projects

#### Belle Fourche

Three days of the week ending June 30 were spent in the field assisting in the control of grasshoppers by using poison bran mash. The hoppers this year are very numerous in some sections and immediate action in efficient poisoning only will control the pests. Train crews report the sanding of rails to permit the movement of trains. Cut worms have appeared in numbers on two farms. Arrangements have been made through the county agent to purchase all hopper poison at wholesale and to supply the farmers with this material at cost.

Hog cholera appeared on the southern part of the project for the first time resulting in the vaccination of 600 head of swine. Repeated warnings from this office and from the experiment farm have awakened the feeder-pag growers to the necessity of vaccinating as part of the management of their herds. But six feeder-pigs aied of cholera in this last outbreak.

One day was spent in testing milk for dairymen.

Eggs are worth 15 cents and butter fat 31 cents on the local markets.

Frank E. Miller.

#### Minid oka

During the week ending June 23 conferences on dairy matters revealed that farmers are ready to buy dairy heifers if same can be found at a reasonable price. There are practically no good cattle for sale locally.

An outbreak of hog cholera occurred on the farm of J. W. Garrish, south of Burley. Prompt vaccination saved the balance of the herd of twenty-five after the loss of one animal.

Continued interest is shown in the development of the cheese business. Price for butterfat at cream stations is thirty-three cents to thirty-six cents; at the cheese factories forty-eight cents.

The principal business of the week ending June 30 has been the investigation of the damage being done by alfalfa weevil and grasshoppers to the alfalfa crop and matters of hog cholera control. Cholera was found in two herds. In one herd one animal was lost out of twenty-five and in another herd of sixty-five, there was no loss. Near neighbors vaccinated their animals so that we hope to stop the spread of the disease. Reports from various points in the State of Idaho indicate more cholera than for five or six years.

The Holstein Cattle Club is putting on a campaign for the organization

of a bull association.

John T. Montgomery.

#### Newlands

During the week ending June 23 an importation of a herd of registered Holstein females was made, numbering 104 animals, ranging in ages from four to twenty-seven months. This herd was imported by Mr. H. J. Long, who already has a registered Holstein herd of approximately 100 animals. With this importation the Newlands project will have one of the largest registered Holstein herds in the west.

A community pasture association has been organized in the Harmon district by a number of the dairymen for the purposee of utilizing in a cooperative way a considerable area of vacant land adjacent to the district. Arrangements have been made to utilize waste water on this land for developing pasture.

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### Newlands (continued)

About two hundred head of cattle will be grazed on this pasture. A lease has been secured from the Reclamation Service for a term of years, and it is planned to fence the area, put in corrals and make other improvements to facilitate the handling of the cattle. A herder is employed to tend the cattle. Some time has been given in assisting to formulate this organization and in arranging plans for handling the cattle. With the use of this pasture the carrying capacity of the ranches of the members of the association will be considerably increased. Some of the members have moved their milking herd to the pasture and are doing the milking there.

Some time has been spent during the week in arranging for a cooperative shipment of hogs to be sent out on Monday of next week. The price to be received for this shipment is 8 cents for hogs weighing 125 to 200 pounds f.o.b. Reno. The shipping expense to Reno amounts to about 20 cents per hundred when full cars are shipped. These cooperative shipments leave Fallon at 4.30 P. M.and are unloaded in Reno five or six hours later and are weighed out at 8. A. M next morning. The shrinkage amounts to an average of 4%. For some time past the cooperative shipments from this project have amounted to one carload of hogs and one carload of cattle each month.

L. E. Cline.

#### North Platte

During the week ending June 30 two flocks of hens were culled for farmers. It is rather early in the season for culling but the farmers were selling a few hens and wanted to dispose of only the poorest ones. These same flocks, together with others in the community, will be culled thoroughly this fall.

Attention was given to a few cases of sickness in young chickens. Most of the trouble seems to have originated from unsanitary quarters and improper feed.

Good cows continue to be in demand and some time was spent in locating cows for sale locally. A herd of mixed breeding was located and farmers on Dutch Flats put in touch with the owner.

Most farmers have been very busy with their alfalfa the last two weeks and for this reason club meetings have been largely postponed until next month. The Henry pig club met one evening this week and decided to have a tour next Monday afternoon, visiting each member of the club and a few breeders and club members on Dutch Flats.

D. H. Propps.

# Shoshone

During the week ending June 23 besides the usual miscellaneous work, attention was given to Boys' & Girls' Clubs, milk testing and dairy records. Three club meetings were conducted at which members were given information preparatory to live stock jusging. Three herds were tested for butterfat and three sheets for May summarized for owners.

On the 22nd of June a severe hail, rain and wind storm proceeded from the southwest to hortheast through Powell across the project and did much damage to beans, beets, potatoes, alfalfa and gardens over a strip of territory 2 to 3 miles wide and several miles long. Practically no hail insurance has been carried by farmers in the past as a destructive storm of this kind had never before occurred.

The Powell Sheep Growers' wool was loaded out Thursday. It is to be weighed and paid for upon its arrival at Billings. The Powell Creamery paid 39 cents a pound for butterfat all week.

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### Shoshone (continued)

During the week ending June 30 one meeting of club members was held east of Powell, the time being given to stock judging, and 8 members were visited in relation to feeding and record keeping. Most of one day was given to Mr. Stutsman of the Powell Sheep Growers' Association who wished assistance with the prorating to members of the returns and expenses of the recent wool sale. The gross return from the farm flocks was about \$9,000. Three herds were tested for butter fat, and an article on the value of a creamery to a community was prepared for the local paper. By the end of the week, the Powell creamery which reopened on June 15 had 60 patrons and had made 2,000 lbs. of butter. Cream stations report a marked increase in the amount of butterfat marketed during the first 6 months of 1923 over the preceeding 6 months.

Much of the bean acreage which was in the path of the hail storm of last week has been disked or plowed and seeded to barley or oats. Other crops though damaged by having growth much retarded were not destroy-

ed except in restricted areas.

G. A. Wright.

#### Sun River

The major portion of the week ending June 30 was spent in surveying farm laterals. Irrigation systems for approximately 450 acres were laid out.

Part of Friday and Saturday was spent in making a general survey of the crop conditions and the grasshopper situation. The district around Fairfield within a radius of eight miles was covered. Many reports had been received regarding grasshopper damage and these were investigated. In most cases the reports were exaggerated. In a few fields where the grain had been planted late it had been taken. Where the grain was half or two thirds matured there was no serious damage, although in places the hoppers were thick. If these fields are poisoned at once the crop will likely be saved. In almost every case the hoppers were thickest on the newly cultivated land.

Due to the recent heavy rains and the absence of any hot dry winds there was very little irrigating during the week. The grain is looking fine, some of it is starting to head. Farmers are beginning to cut their first crop of alfalfa.

Blaine Kelsey.

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#### IRRIGATION AND DRAINAGE WATERS ON THE YUMA PROJECT

During the year ending last May, samples of the irrigation water used at the Bard Experiment Farm have been taken by Noble and analyzed by Breazeale. There were 41 samples taken during the year, one from each run of irrigation water. These samples were analyzed for suspended matter (silt), total solids, and the more important constituents.

It was found in this series of analyses as it has been noted before 1/ that the proportion of total dissolved solids in the Colorado River

# 1/ Analysis of Colorado River Water in Weekly Bulletin, March 4, 1922.

varies between wide limits, being much lower during the period of summer flood than during the low water season.

In the series for the past year the range in total dissolved solids is from 288 parts per million for June 26, 1922, up to 1440 parts per million for November 13, 1922. The mean for the year is approximately 1,000 parts per million.

The total diversion of water at Laguna Dam for 1922 was 326,670 acrefeet. A large part of this was wasted back into the river. It is estimated that the total delivery of water to farms on the project during the year was 140,056 acre-feet. It is also estimated that the canal losses during the year were equivalent to one acre-foot for each acre irrigated or 53,970 acre-feet. This would indicate that during 1922 about 200,000 acre-feet of Colorado River water was absorbed by the irrigated lands in the Yuma Valley including the Reservation Unit. If it is assumed that this water carried 1,000 parts per million of dissolved solids then it added 272,000 tons of salt to the valley during the year.

The Yuma project has a drainage system through which some of the underground water is collected and discharged into the river. There are two main outlets for this drainage system. One from the Reservation Unit and one from the lower valley. During the year ending June, 1923, the discharge from the Reservation drain was 10,628 acre-feet, while from the lower Valley arain it was 37,164 acre-feet. Samples of water discharged by these drains were taken each month from August, 1922 to April, 1923. Analyses of these samples shows that the salt content of the drainage water is much less variable than that of the irrigation water. The total solids in the water from the Reservation drain varied from 800 to 960 parts per million with a mean of 904 parts. In the drainage from the lower valley, the range was from 1468 to 1680 parts per million with a mean of 1570 parts.

These figures would indicate that the Reservation drain discharged about 13,000 tons of salt during the year and that the lower valley drain discharged 79,000 tons, or a total of 92,000 tons for both. The major features of the situation for the valley may be summarized as follows:

- 1. There were 53,970 acres irrigated in the Yuma project in 1922.
- 2. The net diversion to the valley for the year was 200,000 acre-feet of water carrying 270,000 tons of salt.
- 3. The drainage discharge from the valley was 48,000 acre-feet of water carrying 92,000 tons of salt.
- 4. The net increase in salt content of the valley lands was 180,000 tons of salt.
- 5. If this net increase in salt were distributed uniformly to the 53,000 acres of irrigated land, which it probably was not, it would be equivalent to 3.5 tons per acre for the year.

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At first glance it would appear that the drainage system in the Yuma valley is operating satisfactorily. It is discharging nearly 25 per cent of the net diversion. If the drainage water carried 4 times as much salt as the irrigation water then it might be assumed that the salt content of the irrigated land is not increasing. But the drainage water is not much more concentrated than the irrigation water. For the Reservation unit the mean is 904 for the drainage and 1,000 for the irrigation. This difference is probably due to the fact that the irrigation water is less salty in the summer when the heaviest use is made of it.

The salt content of the lower valley drain is higher than that of the irrigation water which might be taken to indicate that some leaching is going on. But there are two points that need to be considered with respect to the lower valley. If we assume an equal delivery to the lands of both units we would have 150,000 acre-feet delivered to the lower valley and 50,000 acre-feet to the Reservation unit. This would mean that the irrigation water is bringing in 200,000 tons of salt and the drainage discharge is taking out 79,000 tons, leaving a net gain of 121,000 tons of salt per year to the lands of the lower valley. Also there is some question as to whether the water discharged from the valley drain is chiefly derived from the irrigation applied or in part at least from the Gila underflow. Some light on this point may be gained by comparing the quality of the waters involved. We have the analyses of the Colorado River water, of the water from the lower valley drain, and from the Gila underflow. These last have been made on samples of well water collected in the spring of 1923 by Prof. Code of the University of Arizona from the Welton to Yuma. These analyses show the total solids as percentage of the water and the important constituents as percentage of the total solids. See Table I.

Table I.--- Quality of water of the Colorado River, of the Gila Underflow and of the drain of the lower Yuma Valley, 1922. Analyzed by Breazeale. Percentage composition.

|                | Total Solids |        | HCO <sub>3</sub> |      | :<br>: SO <sub>4</sub> |  |
|----------------|--------------|--------|------------------|------|------------------------|--|
| Colorado River | 1000         | 17.3   | 14.5             | 11.2 | 37.8                   |  |
| Gila Underflow | : 1614       | : 10.1 | 9.0              | 40.0 | 12.6                   |  |
| Valley Drain   | :<br>: 1570  | 12.8   | 10.9             | 31.6 | 23.6                   |  |

The results given in the table show that the valley drain contains slightly less total solids than the Gila underflow as though that underflow had been somewhat diluted by Colorado waters. In percentage of the chief constituents the drainage water is intermediate. The Gila underflow is characterized by high cholrine and low sulphate while the Colorado water shows low chlorine and high sulphate.

The conclusion seems to be unescapable that the Yuma drainage though of large volume is not carrying away the salts brought in by the irrigation water. This drainage appears to consist in part of water that leaches quick-

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ly through the sandy lands of the project without picking up any salt and in part of Gila underflow.

If this is true the annual increment of salt to the silty and naturally more productive lands of the project is even larger than the 3.5 tons per acre indicated above.

The question that naturally suggests itself is, "May this not be the cause of the decline in crop yields that has been noted as having

set in on the Yuma project during the past few years?"

The silty lands of the project have been the most productive. They could be irrigated with little water because they hold water well. It seems probable that the silty lands have not been leached; that the leaching has been limited to the sandy lands. If an acre of silty land can be irrigated with 3 acre-feet of water without leaching, it would have added to it each year about 4 tons of salt. If we assume that this silty soil when moist enough to produce a crop contains an average of 15 per cent of moisture we would have 900 tons of water in each acre to the depth of 3 feet. If this water at first had been like that of the Gila underflow it would have contained about 15 tons of salt. It would not take many years of irrigation, adding 4 tons of salt each year, to reach a concentration that would be critical for crop plants.

The situation in the Yuma valley appears to call for some readjustment in the use of water to the end that the drainage discharge may be made to carry away more salt than at present. It ought to be possible to bring this about without increasing materially the volume of the crainage which is already large. More restricted use of water on the sandy lands and its freer use on silty lands ought to result in leaching away more

salt without increasing the volume of drainage.

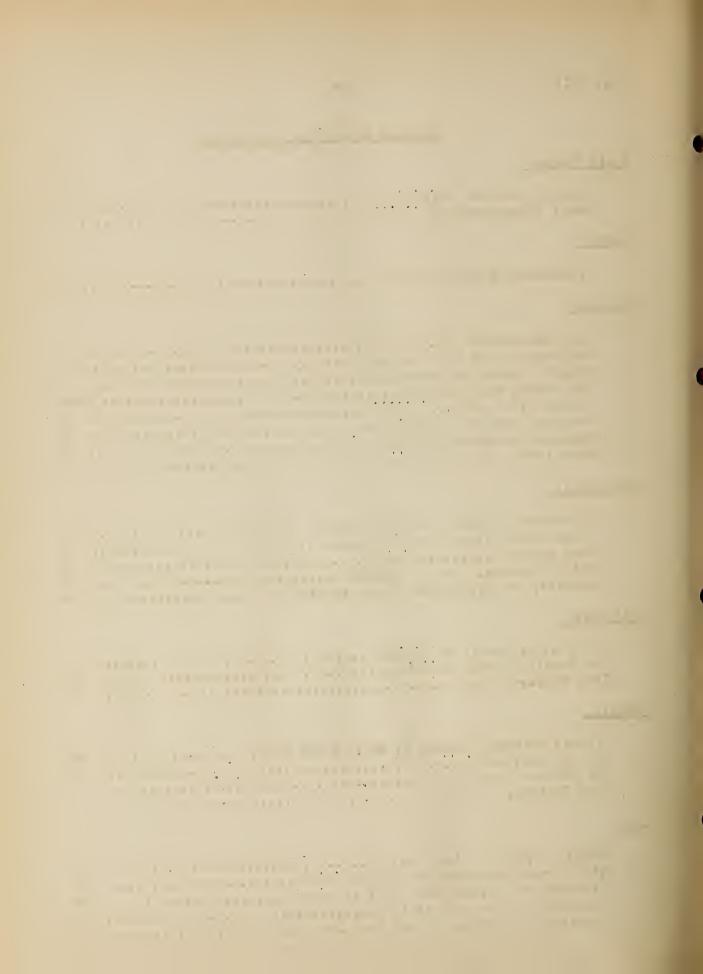
The utilization of the sandy lands for crop production with less water than they now require will be dependent upon the extent to which they are silted up by applications of silty water during the flood periods. Such treatment is possible under existing regulations and should be encouraged. The freer use of water on silty lands should be encouraged to the end of leaching out the salt that has been accumulated in them as a result of sparing irrigation.

C. S. Scofield.

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# Western Irrigation Agriculture

| Bell  | e Fourche   |                    |
|-------|---|--------------------|
|       | Alfalfa pasture, hogs on  | 94<br>94           |
| Hunt  | <u>lev</u>  |                    |
|       | Grasshopper damage to crops   | 103                |
| Newl  | ands  |                    |
|       | Alum experiments Analyses of alum used on plats Alfalfa Aphids, appearance of Hog feeding experiments Hogging off wheat Pastures, interest created in Pastures, carrying-capacity tests Shade trees, demand for | 12<br>97           |
| San   | <u>Antonio</u>  |                    |
|       | Boll-weevil control, calcium arsenate application   | 7.<br>05<br>54     |
| Scot  | tsbluff   |                    |
|       | Alfalfa, yields first cutting   | 99                 |
| Umati |   |                    |
|       | Alfalfa Eelworm, hearing by State Board Hort  | 81<br>75<br>2<br>2 |
| Yuma  |   |                    |
|       | Tuberculin testing of cattle  |                    |



# Demonstrations on Reclamation Projects.

| Belle Fourche   |   |
|---|---|
| Department's principles and supplying home needs from garden, cows and chickens, illustrating Feeder pig industry, letter contest Foreclosures and Sheriff's Sales on Project Hog mange, outbreak Pig Club Tour Project Boosters' Association, formation of Pruning Fruit Trees, demonstrations in Sheep Scab Sheep Dipping Wool Pool, formation of | 9<br>. 66<br>. 111<br>. 56<br>. 45<br>. 66-72 |
| Minidoka  |   |
| Cheese Factory, Rupert, opening of  | 17  |
| Newlands  |   |
| Alfalfa weevil, inspection by Insect Pest Control Service of California   | 92<br>111                                     |
| North Platte  |   |
| Bulls, loan to farmers by Barton and Son  |   |
| Sun River   |   |
| Grasshopper Pest serious  | 101   |
| Attending meeting, Agricultural College and State Expt. Station, Manhattan, Kansas Potatoes, feeding to hogs Hogs, feeder - results fed on potatoes, grain and hay Registered Sires, list of men owning   | 37<br>102                                     |
| MI SCELL ANEOUS   |   |
| Dairying on Newlands Project  | 78<br>122                                     |

